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PROCEEDINGS

OF THE

CONNECTICUT MEDICAL SOCIETY,

1898.

ONE HUNDRED AND SIXTH

ANNUAL CONVENTION,

HELD AT

NEW HAVEN, MAY 25TH AND 26TH.

PUBLISHED BY THE SOCIETY.

N. E. WORDIN, M.D.,
JULIAN LA PIERRE, M.D.,
GUSTAVUS ELIOT, M.D.,
Publication Committee.

1898.

The Connecticut Medical Society does not hold itself responsible for the opinions contained in any article, unless such opinions are endorsed by special vote.

All communications intended for the Connecticut Medical Society must be addressed to N. E. Wordin, M.D., Bridgeport, Conn.

The next Annual Meeting of the Connecticut Medical Society will be held in Hartford, May 24th and 25th, 1899.

THE FARMER PUBLISHING CO. PRINT,
BRIDGEPORT, CONN.

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OFFICERS OF THE SOCIETY.

1898–99.

PRESIDENT.

HENRY P. STEARNS, Hartford.

VICE PRESIDENT.

CHARLES S. RODMAN, Waterbury.

VICE PRESIDENTS, ex officio.

JAMES CAMPBELL,
FRANK W. WRIGHT,
ABIEL W. NELSON,
JOHN C. LYNCH,
WILLIAM H. JUDSON,
WILLIAM S. MACLAREN,
JOHN E. LOVELAND,
ELI P. FLINT.

TREASURER.

W. W. KNIGHT.

SECRETARY.

N. E. WORDIN.

ASSISTANT SECRETARY.

JULIAN LAPIERRE.

COMMITTEE ON MATTERS OF PROFESSIONAL INTEREST IN THE STATE

FREDERICK T. SIMPSON, RALPH A. McDONNELL,
SELDEN B. OVERLOCK.

STANDING COMMITTEES.

Committee to Nominate Physicians to the Retreat for the Insane.

H. S. FULLER, M.D., ERASTUS P SWASEY, M.D.,
ELBRIDGE K. LEONARD, M.D., JOHN B. KENT, M.D.,
FRANCIS D. EDGERTON, M.D.

Committee on Legislation

M. STORRS, M.D., F. BACON, M.D.,
L. S. PADDOCK, M.D., E. F. PARSONS, M.D.,
N. E. WORDIN, M.D.
E. J. McKNIGHT, M.D., Hartford County.
O. J. D. HUGHES, M.D., New Haven County.
F. N. BRAMAN, M.D., New London County.
J. W WRIGHT, M.D., Fairfield County.
J. B. KENT, M.D., Windham County.
R. S. GOODWIN, M.D., Litchfield County.
FRANK K. HALLOCK, M.D., Middlesex County.
C. B. NEWTON, M.D., Tolland County.

On Medical Examination.

MAX MAILHOUSE, M.D., HORACE S. FULLER, M.D.,
JOHN W. WRIGHT, M.D., J. FRANCIS CALEF, M.D.,
LEONARD B. ALMY, M.D.

On Honorary Members and Degrees.

J. C. KENDALL, M.D., HENRY L. HAMMOND, M.D.,
CARL E. MUNGER, M.D.

Committee on Publication.

N. E. WORDIN, M.D., ex officio.
JULIAN LAPIERRE, M.D.,
GUSTAVUS ELIOT, M.D.

Committee of Arrangements.

S. B. ST. JOHN, M. D., Anniversary Chairman.
ERASTUS P. SWASEY, M. D.,
CHARLES C. BEACH, M.D.,
HARMON G. HOWE, M.D.,
GEORGE K. WELCH, M.D.

PROCEEDINGS

OF THE

CONNECTICUT MEDICAL SOCIETY.

ONE HUNDRED AND SIXTH ANNUAL MEETING.

The President and Fellows of the Connecticut Medical Society met in Warner Hall, New Haven, on Wednesday, May 25, 1898. The President, Dr. Goodwin, called the meeting to order promptly at 11:35 A. M. The Committee on Credentials made its report by calling the roll of regularly appointed delegates.

FELLOWS, ex officio.

President.
RALPH S. GOODWIN.

Vice President.
HENRY P. STEARNS.

Vice Presidents, ex officio.
JAMES CAMPBELL,
FRANK W. WRIGHT,
*ABIEL W. NELSON,
*JOHN C. LYNCH,
*WILLIAM H. JUDSON,
WILLIAM S. MACLAREN,
*JOHN E. LOVELAND,
ELI P. FLINT.

Treasurer.
WILLIAM W. KNIGHT.

Secretary.
N. E. WORDIN.

Committee on Matters of Professional Interest in the State.
*C. J. FOOTE, *A. A. CRANE,
*L. B. ALMY.

*Absent.

FELLOWS BY COUNTIES, ELECTED IN 1898.

Hartford County.

Gideon C. Segur, Erastus P. Swasey,
Charles C. Beach, Walter G. Murphy,
*Frederick T. Simpson.

New Haven County.

Walter L. Barber, ||Norton R. Hotchkiss,
Charles A. Tuttle, Oliver T. Osborne,
William A. Delaney.

New London County.

George R. Harris, *John G. Stanton,
*Harold H. Heyer, *Anthony Peck,
*Frederick H. Dart.

Fairfield County.

Robert Lander, Curtis H. Bill,
†Seth Hill, *Fred D. Ruland,
Fessenden L. Day.

Windham County.

*Charles J. Fox, Henry L. Hammond,
*Selden B. Overlock, *Emory H. Davis,
Ashael E. Darling.

Litchfield County.

*Edward H. Welch, §W. M. S. Curtiss,
John C. Kendall, Jerome S. Bissell,
Myron P. Robinson.

Middlesex County.

Frank K. Hallock, *Michael D. Murphy,
*Frank E. Potter, *George H. Lawson,
*Roger C. Downey.

Tolland County.

Edwin T. Davis, *Cyrus B. Newton,
*Philip H. Edwards.

---

*Absent. ||In place of Elbridge W. Pierce. †In place of Carl R. Hexamer. §In place of William S. Hulbert.

It will be seen that New Haven County had a full delegation, while Hartford, Fairfield and Litchfield had only one absent. The report was accepted.

The President then delivered the

ANNUAL ADDRESS TO THE FELLOWS.

Fellows of the Connecticut Medical Society,

Gentlemen:

It is a pleasant duty, I assure you, to extend a cordial greeting to you all, on this, the one hundred and sixth annual meeting of our Society. I thank you for the distinction which you have conferred upon me, and confidently bespeak your kind indulgence as I enter upon the new and untried duties of the honorable office to which you have elected me. It is very cheering to meet so many fellow-workers, who have gathered here from all parts of the state to advance the interests of our humanitarian profession; and in behalf of all the people for whose benefit you are here assembled, as well as in the name of our beloved Society, I bid you thrice welcome—each and every one.

You will not expect me, at this time, to dwell upon any of those technical topics which, later in the session will engross your attention. I choose rather to present a subject which I am sure is one of the special objects of this Society—which belongs, indeed, to the very life of the profession to which we are devoted, namely:

HOW CAN WE RAISE THE STANDARD OF THE MEDICAL PROFESSION?

I think you will concede that our ideals of excellence and of the essential dignity of the profession are none too high. It was De Tocqueville, I believe, who said, "There are no professions in America. Everything is an art or a trade." Are we not too much inclined, today, to take this inferior view of medicine, and to allow

the bread-and-butter problem to enter too largely into our calling? And do we not find ourselves sometimes tempted, by reason of fierce competition and increasing social demands, to go into medicine, simply for what we can make pecuniarily out of it, and to accept that view of ourselves which is current among the laity—that we are mere mercenary tinkers of human machines at so much apiece?

Among those who take such a sordid view of their profession, we should expect to find some who are always ready to enter into an unseemly competition with one another for the privilege of becoming contract-physicians to some beneficiary society, public almshouse, or wealthy corporation. Others, of a like disposition, could probably be found who are not above belittling their profession by frivolous professional quarrels, by shady medical expert testimony, by unwarrantable fee-cutting and by the exhibition of that airy presumption and self-applause which are the too common foibles of our craft. All of these failings tend to lower our profession in public estimation, and the knowledge of them should arouse in us a desire to preserve our high standards and to set them higher for future attainment. Much, I believe, can be accomplished in this direction by a more close and active affiliation of our members. This cannot fail to establish an esprit de corps—a professional pride among us, greatly to the improvement of individual membership.

Each one, then, owes to his profession this duty—to join and to become an interested participator in the doings of this society. Thus he will become, as he ought, a personal factor in the upbuilding and improvement of our professional life and character. In coming here, our chief object should be, not so much to acquire new ideas and views from the discussion of medical topics, though that is commendable; but rather to promote energetic and useful coöperation, and thereby to establish

a higher character, loftier ideals and a closer fellowship for our noble profession.

Out of the six hundred and twenty-two members of our society, would it be extravagant to expect to see at least five hundred present at our annual gatherings? For such a consummation, let each one not only devoutly wish, but also personally strive to bring it about, by good words and works.

Among the prevalent and controlling principles in the medical practitioner's life, second only to a genuine love of humanity, should be a sublime faith in science as the foundation of our healing art. Nothing will elevate our vocation more than this, in the estimation of mankind. The time has gone by when the people expect to see diseases cured by the skin of a black cat, or a horse chestnut carried in the pocket, or the left hind foot of a rabbit, killed in the dark of the moon. The enlightened public sentiment of the present day discards such superstitions and demands a rational, scientific medicine which seeks the causes of disease and helps nature in its cure. Even quacks have found it necessary, and profitable too, to cater to this popular modern scientific tendency. What physician has not discovered them masquerading under a scientific garb, and parading a lot of nonsense in the name of true science? Under this disguise may be found the so-called Christian Scientists and the promoters of the thousand and one germicides, and "oxytuberculins" of newspaper advertising fame.

If there be any pursuit which has its foundation and all its structure in science, which requires its devotees to be familiar with science—to be imbued with it—certainly it is medicine. The study of man, his anatomy and physiology; the study of micro-organisms, their species, life history and influence on man; the study of chemistry, physics, zoölogy, biology and hygiene—these are the sciences, at the present time, with which the

medical student must be indoctrinated before he can take up the more practical specialties of his profession. It seems but yesterday since only two short courses of lectures by each of the "seven chairs" of medicine was the prevailing standard. But medical science has been of late intensely progressive and the thoughts of medical men, in the language of the poet,

"Have been widened, with the process of the suns."

Since that earlier day, we have welcomed a whole band of sister sciences into the medical fraternity. Opthalmology, Otology, Rhinology, Laryngology, Dermatology and Neurology, each has been assigned to a chair beside the original seven, which, taken together, were only the nucleus of that broad realm of medical science which to-day makes tributary every branch of human knowledge. To meet this modern demand, our medical colleges, one after another, are lengthening their courses to four full years of study, and our medical examining boards are setting high their standards of qualifications. They are insisting with commendable firmness that a mere smattering of science will not do.

It is a subject for congratulation that by a recent amendment of our Medical Practice Act, each new aspirant for medical honors, must, before entering upon the practice of medicine, submit to an examination by this impartial tribunal. It is my belief that the members of this board, backed as they are by the profession and by statutory law, and giving up their valuable time for a meagre pittance, are doing more noble work, in the cause of a higher medical education and for a higher professional standard, than all other agencies combined. Let us give them our constant and faithful support.

In this connection I would recommend that this Society authorize the Committee on Medical Legislation to present to our next Legislature for its approval the same amendment to Section 8 of the Medical Practice

Act which they presented to the last Legislature without a favorable result. This amendment provides that each Examining Committee shall hold stated sessions on the second Tuesdays of March, July and November in each year, and that each applicant shall pay twenty-five dollars, as his examination fee, and shall be required to produce a diploma showing that he is a graduate of a medical college with a course of study of at least three years. I can conceive of no reasonable objection to this amendment. If adopted, it would, by fixing stated meetings, lighten and systematize the labors of the examining boards, it would provide better remuneration for their services, and would secure a better-educated class of applicants.

Another amendment to the Medical Practice Act, of scarcely less importance, though unsuccessfully advocated by the committee last year, deserves a renewed presentation to the next Legislature. It provided for revoking the license of any physician who shall have been convicted before a proper tribunal, of crime in the course of his professional business. Such a law would drive unworthy members out of the ranks of the profession and raise the character of its personnel.

I would therefore earnestly recommend that this Society, through its Legislative Committee, assiduously persist in presenting these amendments to each succeeding Legislature until they shall become the law.

The resolution of the New Haven County Society requesting this Society to take steps toward securing State legislation for the prevention of the increase of defective eye-sight among the school-children of the state, will be presented to you for your consideration.

I would suggest that this Society coöperate in this matter, through its Legislative Committee, with the State Board of Health, whose statutory duty it is—Chap. CLIV., Sec. 2583—"to make such suggestions of

Legislative action as they deem proper for the better protection of the life and health of the people." So great is the importance of this subject to the welfare and comfort of those who are to be the future men and women of our state, that I sincerely hope that such combined action as I have suggested may induce our legislators to provide by law some practical remedy for this increasing evil.

In order to secure an increased interest and attendance at our annual meetings, we should fill them to overflowing with interesting and valuable papers and discussions, volunteered by our best and most active workers.

It is quite desirable that these papers, as a rule, should be read at the State Society first. For, however excellent they may be they will be of less interest to many, if they have been previously read in a county meeting. Exceptions of course may be made in the case of papers of extraordinary value. The papers should be short and concise, and if longer than twenty minutes, they should be read only in abstract. The discussions should be limited to five minutes for each member, so that all may have a chance. It is gratifying to observe that this year, an unusually large number of such fresh, volunteer papers have been offered; though on some former occasions, we have had to depend too largely on papers at second hand from the county societies.

I would suggest that some action be taken at this meeting, calculated to remedy the deficiency. The plan adopted at our centennial meeting gave satisfactory results. It consisted in giving to each Section Chairman definite authority to solicit from available sources suitable material for his section. It placed upon him the responsibility of providing an attractive program. The result was an abundance of fresh, original and creditable papers, which in the main were along the line of the higher themes of scientific research in medicines, gyne-

cology and surgery. These valuable papers, with few exceptions, were read for the first time before our State Society, and for that reason were of interest to all. I feel sure that a similar plan could be pursued with profit, now. The authority which was then vested in the chairmen of the different sections, might, by a resolution of the Society, be now given to the members of the Business Committee, which, for this purpose should be made a Standing Committee, and might very properly consist ex officio of the President, Vice President and Secretary of the Society.

Thus, by some such systematic plan of procedure, the excellent talent which exists in our Society might be brought out and utilized; and we may rest assured that our work will not suffer in comparison with that of sister organizations in other states.

A recommendation, made by my predecessor last year, "to make such a change in Section 3, Chapter IV, of the by-laws as will make eligible to membership, distinguished members of our profession who own summer residences in Connecticut and spend a portion of the year among us," was not incorporated in the by-laws, although it received approval by the adoption of the report of the Committee on the President's Address. I heartily approve of the recommendation, and desire to see such an amendment presented at this meeting, to lie over for final action next year.

The resolutions, disapproving of the practice of giving professional services to secret societies by contract, which were passed last year by the New London County Medical Association, and transmitted to our Society for its approval, have this year been renewed by that Society, and supplemented by similar resolutions by the Fairfield and Litchfield County Associations. I think the time has come when this subject should be acted upon by our Society, and I commend it to you as a matter worthy of your careful attention and decisive action.

I would recommend that the Society authorize and direct the Secretary to print, in pamphlet form, a suitable number of copies of the "Code of Ethics" of the American Medical Association, and furnish each County Society with copies for distribution among its members; and that each new member be furnished with a copy upon his admission into the Society.

The reasons for this provision seem to me obvious enough without further comment, except to say that many of our younger members have never seen the "Code of Ethics," and some at least are not aware of the existence of such a document.

I have been earnestly requested by personal letters from both the Chairman and Secretary-Treasurer of the Rush Monument Committee to ask the members of this Society to contribute to the fund for the erection of a monument to Dr. Benjamin Rush in the city of Washington, D. C. Our representative at the last meeting of the American Medical Association at Philadelphia, pledged the coöperation of our Society in raising its proportional share of this fund. The United States government, recognizing the national character of the proposed memorial has assigned a conspicuous site for it in the beautiful park fronting the splendid United States Naval Museum of Hygiene, in Washington.

I need not spend time in eulogizing Dr. Benjamin Rush, "the greatest physician this country has ever produced," the exalted patriot, the distinguished representative of our profession in the foundation of the Republic. You are all well acquainted with this. The patriotic sentiment of the medical profession of this country has been appealed to repeatedly during the last thirteen years for the establishment of this memorial. I have only to suggest that a special committee be appointed—one from each County Association, to solicit funds for this very worthy object and turn them over to the Treasurer, who may report at the next annual meeting.

Permit me to remind you that the annual meeting of the American Medical Association is to be held this year at Denver, from June 7th to the 10th. The Committee of Arrangements have announced to us, by circular, that preparations for the coming meeting are well advanced. A large number of prominent men have signified their intention to be present and to read papers, and an excellent scientific programme is assured. To enhance the attractiveness of the occasion, elaborate social entertainments and excursions for members and their families have been planned. Greatly reduced railroad rates have also been obtained (one half fare and two dollars).

I earnestly hope that our Society may be represented at this meeting by a large and enthusiastic delegation, and I urge all members who can, to go. I do not hesitate to assure such that they will receive a cordial greeting from the citizens, and from their professional brethren of the beautiful city of Denver, and that the meeting will be a memorable one, full of profit and enjoyment for all. Those who propose to go, should signify their intentions to our Secretary at as early a date as possible, so that the Committee of Arrangements may learn from him how large a delegation may be expected from Connecticut.

Before closing, it is fitting that I should add a few words by way of passing tribute to the memory of those of our Honorary Members whom death has called away within the year that is passed.

Dr. Edward Constant Seguin, who died last winter, was one of the most eminent names on our honorary list. He graduated in the class of 1864 from the College of Physicians and Surgeons of New York. He served honorably as Assistant Surgeon in the United States Army during the Civil War, and was the first to occupy the chair of Diseases of the Mind and Nervous System which was established in 1874 by the College of Physicians and Surgeons of New York. He remained as professor at

the head of that department until 1888, when he removed to Providence, R. I. The profession is greatly indebted to him for his contributions and advanced views concerning the pathology and treatment of nervous diseases, and many of our older members will recall the valuable papers which he read before us many years ago.

Another distinguished honorary member, Dr. Benjamin Eddy Cotting of Boston, Mass., died May 22d, 1897. He was elected to honorary membership in 1869, and frequently showed his interest in our welfare by attending our annual meetings. Dr. Cotting was a physician of high standing and influence among his professional brethren and patrons in Massachusetts. He was made Secretary and afterwards President of the Massachusetts Medical Society, to whose interests he gave his whole soul and enthusiastic support. He was at one time the editor and one of the owners of the Boston Medical and Surgical Journal, and contributed largely to the financial and literary success of that valuable medical periodical. After a long, useful and active professional life, he retired from practice, full of honors, to spend a few years in foreign travel; and then, at length, to settle into a serene old age, dying at four score and four years. The Connecticut Medical Society holds him in grateful remembrance.

Another honorary member whom death has compelled us to drop from our list, is Dr. George Firman Horton of Pennsylvania, who was made an honorary member in 1873. Through inadvertence, no record has hitherto been made of his death, which occurred at Tarrytown, Penn., Dec. 20th, 1886.

It is now my privilege and pleasure to declare the one hundred and sixth annual meeting of the President and Fellows open and ready for the transaction of business.

Dr. Lindsley remarked that were it not for the fact that this excellent address was to be printed he would move to have it read again to-morrow. But as all were to have an opportunity of reading it, he would move that a committee be appointed to consider the valuable suggestions made by the President. Doctors J. C. Kendall, F. H. Dart and A. W. Nelson were appointed.

The regular committees were then announced as follows:

On Credentials

N. E. Wordin, C. A. Tuttle.

On Unfinished Business.

Anthony Peck, M. P. Robinson,
J. C. Loveland.

On County Resolves.

O. T. Osborne, W. S. MacLaren;
C. H. Bill.

To Nominate Essayists on the Progress of Medicine and Surgery.

James Campbell, E. W. Pierce,
H. L. Hammond.

On Business.

N. E. Wordin, F. L. Day,
J. S. Bissell.

Auditing.

E. H. Davis, E. P. Flint.

Reception of Delegates and Invited Guests.

C. P. Lindsley, L. B. Bishop,
M. C. O'Connor.

Thereupon an adjournment was made until 1:45 P. M.

THE AFTERNOON SESSION

was called to order at 2 o'clock, and immediately proceeded to the order of business as announced upon the program.

THE REPORT OF THE TREASURER

was presented and referred to the Auditing Committee:

To the President and Fellows of the Connecticut Medical Society:

As Treasurer, I would respectfully present the following report of the finances of the Society for the year ended May 24, 1898:

RECEIPTS.

Balance from old account,		$ 494 49
Cash received from County Clerks:		
Hartford County,	$ 234 40	
New Haven County,	271 80	
Fairfield County,	118 80	
New London County,	75 60	
Windham County,	34 20	
Litchfield County,	88 55	
Middlesex County,	72 00	
Tolland County,	23 40	
Total receipts from taxes,		914 75
Received from Committee of Arrangements,		21 90
Total receipts,		$ 1,431 14

EXPENSES.

Printing Proceedings,	$ 495 56	
Binding Proceedings,	129 86	
Printing and stationery,	45 65	
Postage and expressage,	58 18	
Salary of Secretary,	150 00	
Expenses of Secretary,	5 20	
Salary of Treasurer,	25 00	
Total expenses,		$ 909 44
Cash on hand May 24, 1898,		521 70
		$ 1,431 14

ARREARS ON TAX OF 1897.

Hartford County,	$ 8 00
New Haven County,	80 00
Fairfield County,	98 00
New London County,	16 00
Windham County,	32 00
Litchfield County,	2 00
Middlesex County,	00 00
Tolland County,	4 00
Total amount in arrears,	$ 242 00

Respectfully presented,
W. W. KNIGHT, Treasurer.

Of the Special Committees, Dr. Calef reported for the Medico-Legal Committee, practically as follows: His report was one of progress simply. Individually he had been inquiring into the subject. He appreciated that there were difficulties. He had received and sent more than a hundred and fifty letters and had accumulated fifty pamphlets. These were from every state and territory in the Union. In thirteen states some action had been taken. The matter had been brought before their medical societies. In four states measures concerning the subject had been taken in the Legislature. In three of these four the project had failed. He had on file these pamphlets with copies of the proposed legislation. The whole matter was a difficult one because the changes suggested conflict with the common law. All hope that something may be done and expect ultimately the result will be accomplished. The report was accepted as a report of progress.

[The purpose for which this Committee was created may be found on page 21 of the Proceedings, 1897.]

The President announced the substitution of Dr. Segur

for Dr. F. H. Dart on the Committee to Consider the Recommendations in the President's address.

Dr. C. A. Tuttle presented the following amendments to the by-laws, which by vote of the Society were laid over until next year for action:

CHAPTER VI, SEC. 2.—Amend by inserting after the words, "to be elected" (*third line), the words: "This shall consist of one or more names for President and two or more names, each from different counties, for each of the other offices."

CHAPTER V, SEC. 3. Amend by inserting after the words "nostrum or patent medicine" (†fourth line), the words, "Or who shall be employed or under contract to do the medical work of any individual, firm, society or corporation who publicly advertises, vends or sells any nostrum, appliance, patent medicine or secret treatment."

At Dr. Donaldson's request, the Society voted to allow him to introduce a matter of new business, later in the session.

Dr. Kendall rendered the following

REPORT OF THE COMMITTEE ON THE RECOMMENDATIONS IN THE PRESIDENT'S ADDRESS.

The first recommendation is to authorize the Society's Committee on Legislation to present to the next Legislature for its approval the amendment to the Medical Practice Act, Sec. 8, that they presented to the last Legislature, providing for three stated examinations yearly, that each candidate shall pay an examination fee of twenty-five dollars, and must produce a diploma showing that he is a graduate of a medical college, and that he has spent at least three years in the study of medicine, surgery and midwifery.

The first two provisions of this amendment are the outgrowth of the experience of the Examining Committee

* p. 348, Proceedings 1896. † p 348, Proceedings 1896.

of this Society during the four or five years it has been in service. In successive annual reports to the Society the Committee have shown how they have come to recommend these amendments to the original act, and it would seem to any one who has attended to these reports that the subject needs no argument to be approved. The last provision is only in the line of ensuring the proper conditions of education and qualifications for professional work which are becoming recognized gradually all over our country.

Dr. Lindsley has said within a year, "Examining boards themselves are an educating power in every community in which they are established." They become this power only through the ideals which they set up, which must be realized by the applicants who would meet their approbation.

Your Committee urge the proposed authorization to the Committee on Legislation.

Recommendation second is likewise to authorize the Society's Legislative Committee to secure if possible the passage of another amendment to the Medical Practice Act, which failed in 1897, that shall revoke, without possible recovery, the license of any physician who shall have been convicted before a proper tribunal of crime in the course of his professional acts. This principle is gaining recognition, is already a law in New York, and has within a few weeks been recognized by the United States Supreme Court in a decision by Justice Brewer.

We urge the desirability of having our Legislative Committee renew their efforts to secure the enactment of this amendment.

Third. Your Committee are gratified that this recommendation will come formally before you through the Committee on County Resolves, and commend it to your sympathetic consideration, as it pertains to persons who

are both ignorant of the facts and their own suffering and are helpless to defend themselves.

Fourth. Whatever the Business Committee may have been in former years it is now only a perfunctory instrument that rather embarrasses than assists in the arranging of matters which shall engage the attention of the Convention. If this recommendation is realized it will be of the greatest assistance in the orderly and attractive work of the Convention.

You will be called upon to decide later what action you will take on this recommendation.

Fifth. At the meeting last year and also the year before was considered the question of receiving as members in the Society distinguished men in the profession who are closely identified with our County life by virtue of summer homes in our State where they reside a part of the year and are pleased to meet our County Associations. The principle was endorsed both years, the first time by the Convention, the second time by this body. This may not be a matter of special interest to this Society and to many individuals of the membership, but it is of peculiar interest and importance to some of the weaker rural Associations who by the arrangement have the fraternal association, help and inspiration of men who are well qualified to lend such influence.

As you are legislating for these associations, as well as for others, we bespeak for this question your magnanimous consideration and generous treatment. It is a question of more importance to associations than to the men who will be introduced by the principle to us, and they would feel that you are depriving them of some of their best opportunities by making such men ineligible to membership. Through the favorable action of two years ago this matter has been tested; it is not at all a matter of speculation.

Sixth. Attention has been made to several resolutions

which will be brought to your immediate attention by the Committee on County Resolves, touching the question of contract medical service to associations of various kinds. We give you our estimate of the importance of this matter to our fellowship by quoting the terse wording of the address: "The time has come when this subject should be acted upon by our Society and we commend it to you as a matter worthy of your careful attention and decisive action."

Seventh. Not only our historic sense and our veneration for distinguished predecessors, but also the inspiring influence of fitting memorials on the ever-present generations, commend to the profession, who alone can be looked to at this late day, the recommendation, that we take an active part in contributing to the fund of the Rush Monument. We endorse the proposition that at this time one member from each County Association be appointed to solicit in his Association contributions to this fund; which eight members shall constitute the Committee of the Rush Monument Fund of this Society.

J. C. KENDALL,
GIDEON C. SEGUR.

The report was accepted.

In accordance with the above report, Dr. Kendall offered the following amendments to the by-laws:

CHAPTER III, SEC. 5. The Business Committee shall consist of the President, the Vice-President and the Secretary, ex officio. Besides receiving the dissertations and other papers and reports of cases which in course are referred to them to be read at the meetings of the Society, this committee shall procure by personal solicitation papers from persons qualified to discuss professional matters of fundamental importance and of current interest, and shall seek in every way to furnish an attractive and profitable program of literary exercises for the Annual Convention. The papers thus secured shall have

the place of honor on the program above those referred in course.

CHAP. IV, SEC. 3. After the words, *"County six months," to be appended, "Distinguished non-resident members of the medical profession who own summer residences in Connecticut and spend a part of the year there, may be in the same manner received as members in the Association of the county with which they are thus identified."

These proposed amendments were referred to the Committee through which they should take their proper course at the next annual meeting.

Dr. Kendall also offered the following motion:

That the Committee on Legislation be authorized and requested to renew their efforts with the next Legislature to secure amendments to the Medical Practice Act on the same lines they did with the last Legislature as embodied in the Proceedings of 1897, page 32, Sec. 5, and page 34, Sec. 9.

These resolutions passed.

Dr. Kendall offered a resolution, that one member from each County Association be now appointed to solicit in his Association contributions to the Rush Monument Fund, which eight members shall establish the Committee of the Rush Monument Fund of this Society.

Dr. Lindsley said that during the session of the American Medical Association at Philadelphia, Dr. Gihon made a forcible and eloquent address upon this subject. He has been very active in it for years. His speech was followed by great applause and some other speeches in the same general vein. Pledges began to be made from various States. When the voluntary contributions began to flag, the contributors began to call upon States which had not offered anything. It soon began to be apparent that Connecticut would not escape. When the State was called upon, the delegation said they were not auth-

* p. 344, Proceedings 1896.

orized to make a definite pledge but that they were in sympathy, and during the year would make an effort to raise the money. No opportunity has since arisen of bringing the matter to the attention of the physicians. No definite sum was pledged but the promise that an effort would be made to raise a sum proportionate for our State. The resolution might be amended. Eight members may not be in touch with all the profession. They ought to have power to appoint some person in every town in the State. It should be a systematic plan. One argument of Dr. Gihon was that a sect in medicine had in a brief period raised a sum of money and erected a memorial to its founder. This is comparing a sect with the profession of medicine and while it may be an incentive, is not a high one. But it will have an influence. We are striving to raise a monument to the memory of a man who stands high in the United States; a man who is not dependent on bronze and stone for a memorial. He stands high as a statesman, a patriot, a physician. The others are laboring to perpetuate a sect whose teachings they have repudiated while they endeavor to convey to the world the idea that infinitesimal doses have greater influence upon a patient than those determined by rational and scientific medicine.

The resolution was amended so as to give power to each member of the Committee to appoint one person in each town to solicit for the purpose and the resolution was then adopted.

The President appointed the Secretaries of the County Associations as members of the Committee.

Dr. Kendall followed with another resolution:

That the Secretary be authorized and directed to print in pamphlet form a suitable number of copies of the Code of Ethics of the American Medical Association, and furnish each County Association with copies for distribution among its members, and that each new member be fur-

nished with a copy upon admission to his County Association.

Dr. Lindsley seconded the motion and said it was high time that it was done.

Dr. Kendall.—At the last meeting of the Litchfield County Association, it was apparent that the Code is not known. Men who graduated fifteen years ago, said they had never seen a copy. It wants to be in small shape where it can be gotten easily, and the number ought to be large. The Society is increasing fast. Fifty new members are being added every year. The number of copies ought to be at least two thousand.

Dr. Donaldson presented the resolution for which permission had been previously granted him. It was in the form of a resolution from Fairfield county and had been adopted at the annual meeting of that Association. The resolution was accepted and referred to the Committee on Legislation:

Resolved, That the Committee on Legislation be requested to consider the advisability of and secure legislation for prohibiting public exhibitions of hypnotism.

This was adopted.

Dr. Carmalt.—For some time there has been before the Committee on Legislation of the District of Columbia, a Bill which has for its object the restriction of vivisection. At the meeting of surgeons at Washington an effort was made to oppose the Bill by bringing influence to bear upon the U. S. Senators. Dr. Carmalt was appointed to attend to the matter in this state. He has received coöperation from Senator Platt, who has prevented the bill from being brought up, and he believes that Senator Hawley is right on the question. It would be of advantage if this Society should assist and hold up the hands of the Senators, so as to let them know that the profession of the country were behind them, therefore

Resolved, That the Secretary of this Society be in-

structed to write to the Senators from Connecticut, that it is the opinion of the members of the Connecticut Medical Society that the legislation embodied in Senate bill 1063 is uncalled for and hence unwise; that in its scope it is prejudicial to scientific medical research; that it is mischievous and inquisitorial and prohibitive in its details, and if carried out it will prevent the employment of some of the most beneficent measures for the combating of disease and the prolonging of life that the world has known.

Resolved, That it is the glory of the medical science of the century that the average of human life has increased by more than ten years and we assert that this has been brought about in a very great measure by the study of physiological and biological processes as exemplified in and investigated by experiments upon animals. We regard these experiments to be as completely justified as is the employment of animal food to sustain life, and we most earnestly and respectfully urge upon the honorable Senators from the State of Connecticut to oppose by any legitimate means the enactment of legislation that would in any way interfere with scientific research and is unauthorized by the Society for the Prevention of Cruelty to Animals in the District of Columbia.

Resolved, That the delegates of this Society to other State Societies and Associations are requested to bring this subject in proper form to the notice of these Societies and Associations and to ask them to take corresponding action.

There are two societies in the District of Columbia. One is the Washington Humane Society. The other is the Society for the Prevention of Cruelty to Animals. The latter works without trouble and wants no new legislation. The Humane Society want to advertise themselves. He moved the adoption of the resolutions.

Dr. Lindsley said that the resolutions want no discus-

sion. If this project is made a law in the District of Columbia it can be so in other States. This is an entering wedge. The agitation is mostly carried on by ladies, who of course have influence with the Senators. We must counteract that. He had received a favorable answer from one Senator and a sure committal from the other. The resolutions, coming from such a body of professional men as this, would surely have an influence.

Dr. Segur remarked that the subject had been brought up in Hartford by their Society there, and similar resolutions had been passed. Communications with favorable answers had been received from our representatives. It was desirable to have the force of a body like the State Medical Society. He seconded the resolutions.

Dr. Carmalt.—This would be an opening wedge to get the law passed in other States. They have threatened to stop the investigations at the Johns Hopkins University.

The resolutions were passed.

Dr. Osborne rendered the

REPORT OF THE COMMITTEE ON COUNTY RESOLVES.

Your Committee has received resolutions from the last annual meeting of the County Associations of New Haven, Fairfield, Litchfield and New London.

First. The resolution from New Haven County refers to the ever increasing optic defects among school children and is presented for our consideration as follows:

1. A careful study of statistical articles published on the eye defects of school-children ought to convince anyone of the necessity for some regulations governing the management of children's eyes.

2. The increase of myopia and the increase of eye-strain, causing inflamed eyes, headaches, or more serious nervous symptoms, can be prevented, at least in part.

3. The proper management and amount of light

in the school-rooms, and the proper kind and height of desk for the child's book, is well understood by the school boards and their architects, and can be managed by them better than by the medical fraternity.

4. Many States and still more cities have by State legislation or by city ordinances provided for the examination of pupils' eyes for the purpose of ascertaining gross defects.

5. The State of Connecticut should, through its Legislature provide for a simple test examination of every pupil's eyes in that division of the primary department where the children are first able to read, the teachers of these departments being provided with test-cards for making the examinations themselves. The teachers should then make a report of each examination on a blank provided for that purpose, which should be filed with the Principal, the latter notifying the parents or guardian of a child with defective eyes that it is advisable for the child's health to consult their family physician for recommendation to some oculist.

Therefore we recommend the following resolutions:

Resolved, That the New Haven County Medical Association presents this whole matter, as embodied in this report, to the Connecticut State Society, hoping that the latter body will see fit to take steps toward State legislation to prevent the increase of defective eye-sight in our community.

Dr. Carmalt.—The trouble is with the school-boards. They don't know, and they won't do, because it costs something. He is a member of a school-board and knows how it is. They won't grade the desks, because it costs something to do it.

Dr. Osborne.—There are desks which come ready-made for adjustment. He thought they would let that matter alone in their report.

We would recommend that this matter be referred to

the Committee on Legislation with power to act.

Second. The resolutions from the Fairfield, Litchfield and New London Counties all pertain to the same thing, viz., to professional services rendered to lodges by physicians for a certain fee per capita per annum.

With the ever-increasing number of lodges asking for contract professional services, and the ever-increasing competition among the profession of the State, and with the tendency of the profession to forget the standards of fees recognized as dignified, to be modified only by necessity, the compensation for such services to the lodges has become so low in some of our cities as to render the whole contract system vicious, both for the physician who has neither time nor inclination to do his work carefully and for the patient who gets but incomplete attention and often only undiagnosed or tentative treatment.

On this subject, Fairfield offers us the following:

Attention having been called to the evidently mercenary practice of making contracts for medical service with various lodges, societies and similar organizations by members of our profession and of this Society, be it

Resolved, First. That it is especially derogatory to professional character for a physician to enter into contracts for such service. It is not in accord with the best interests and with the public honor of the profession, nor does it enhance the moral excellence required in professional attendance, nor does it tend to that quality of service which results in the highest medical science; therefore, be it

Resolved, That we as a body request the attention of the Fellows of the Connecticut State Medical Society at their next meeting, to this practice, and urge them to adopt such measures as shall put an end to this increasing evil.

Adopted by the Fairfield County Medical Society, April 12, 1898. Attest,

W. W. Gray, Clerk.

The resolutions from Litchfield are even stronger:

Resolved, That the acceptance by members of the medical profession of contract relations with lodges, societies and similar organizations in rendering medical services to the members of those organizations is contrary to the spirit of ethical principles that ought to rule among the members of the profession, that practically it is derogatory to the character and standing of any physician who is party to the contract, as also to the honor of the profession at large, and renders such physician subject to direct action by the society to which he belongs.

Resolved, That the Litchfield County Medical Association press upon the attention of the President and Fellows of the Connecticut Medical Society at their meeting in May next, the prevalence and the increasing prevalence of this vicious practice and habit on the part of members of the Connecticut Medical Society and urge the propriety and necessity of endorsing the foregoing resolution.

Note.—Both in committee room and by the Society in deliberation, the terms "similar organizations," in line three were understood to mean any interest where fees are paid in definite sum without regard to amount of attendance; they do not prohibit special recognition by mills, railroad companies, etc., of surgeons whose attendance is charged regularly.

The New London County Association tersely sums up the whole matter in these resolutions, viz.:

Resolved, That the Connecticut Medical Society at its annual meeting at New Haven in May, 1898, be and is hereby asked to pass upon the following resolution:

Resolved, That the Connecticut Medical Society holds it to be derogatory to the dignity of its members to render professional services at a stipulated fee per capita per annum to the members of any lodge, society, association, or organization, and that such rendering of professional

services shall be considered a breach of professional etiquette and subject to direct action by this Society.

Resolved, That the foregoing resolution shall not apply to the rendering of professional services to any hospital or purely public charitable institution.

Passed by the New London County Medical association at its annual meeting, held April 7, 1898.

C. B. Graves, M.D., Clerk.

Your committee after deliberation offers the following resolutions:

Resolved, That the Connecticut Medical Society declare it to be derogatory to the dignity of its members to render professional services at a stipulated fee per capita per annum, to the members of any lodge, society, association or organization, or to enter into any contract for such service with any lodge, society, association or organization; provided, that professional services rendered any hospital, dispensary, orphan asylum, town poor, or other public charity, or salaried services rendered any railroad, shall not be prohibited by this act.

Resolved, That any member of this Society violating the above resolution is guilty of a breach of professional etiquette and is subject to the rules and regulations governing the same.

O. T. Osborne,
Curtis H. Bill,
Wm. S. MacLaren.

Dr. Lindsley.—The President's address illustrates the point. The contract system draws the line between those who practice medicine as a business and those who do it as a profession. We ought to discourage it.

Dr. Osborne.—Ten years ago he was on the other side. But the condition is different here, for here larger fees were paid. In some cities the fees were ridiculously low.

Dr. Lindsley.—Fees have nothing to do with it. It is, as the President says in his address, the difference between a profession and a trade.

Dr. Osborne.—The resolutions of Litchfield County have a note attached which explains the situation. If those in the county are satisfied with what the mills which make the contract, pay, the Committee is satisfied.

Dr. Kendall.—In Litchfield County the contract system includes, as we understand it, the care of the town poor. Work for an indefinite sum is the point we make. It will be all right for a railroad or for mills to agree with a surgeon to send for him when help is needed, if he gets his fee for each visit. But if so much work—an indefinite amount—is done for a sum agreed upon, that is condemned. Our Association condemns everything which is done for a "lump sum."

Dr. Donaldson moved an amendment to strike out that portion relating to the mills.

Dr. Segur seconded the amendment and stated that the Board of Charities of Hartford have been cutting down expenses. They reduced the amount two thousand dollars, fourteen hundred of which came out of the salaries of the physicians who attended the town poor.

Dr. Kendall said the note was appended to their resolutions because of jealousy among the members. They put no restriction upon any corporation as to what physician they may employ.

Dr. F. W. Wright.—Time is wasted on this discussion. It will influence no one. Younger men will come and take the contracts. He moved to lay the whole matter on the table. The President ruled this out of order.

The amendment to cut out the restrictions was carried.

Dr. Wright again moved to lay the subject on the table. This was lost and the motion as amended was passed, and applause followed.

Dr. Osborne.—This action should have some date for its beginning, some fixed time when there should begin to be a penalty.

Dr. Donaldson.—The understanding was that it should not interfere with contracts existing.

The report of the Committee as a whole was then accepted.

Dr. Hammond reported from the Committee to Nominate Essayists on the Progress of Medicine and Surgery:

On the Progress of Medicine.—Dr. O. T. Osborne, New Haven; Dr. E. K. Root, Hartford.

On the Progress of Surgery.—Dr. M. M. Johnson, Hartford; Dr. A. A. Crane, Waterbury.

Dr. Segur presented the list of officers and committees selected by the Nominating Committee, but as a number of them had already received other appointments and declined these added duties, the report was referred to the committee again for change.

Dr. Day from the Committee on Business reported that the order for the afternoon of to-day and for both sessions to-morrow had been posted at the entrance of the room. The report was accepted.

The Committee to Nominate Physician to the Retreat for the Insane reported through Dr. Kent, the only member of the Committee present, that nothing had been done.

Dr. Storrs made the

REPORT FOR THE COMMITTEE ON LEGISLATION.

The Committee on Medical Legislation would make the following report:

No Legislature intervening since our last annual meeting, nothing has arisen to call the Committee on Legislation together. At that time the law requiring examination for every applicant for a certificate of registration had then passed both branches of the Legislature and was later approved by the Governor, and should have

gone into effect at once. Mr. Gross who drafted the law and Governor Cooke who approved it, so understood the matter. The Secretary of State at first gave the opinion that it would go into effect in July. Afterwards he informed the Committee that it was effective when approved, but later on he was in doubt and said that it might need the Court to decide the matter. But at his suggestion the Secretary of the State Board of Health was notified that the law was operative at the time when it was approved by the Governor. We read in Secretary Lindsley's late report that he had a vast amount of trouble and anxiety from the ambiguous phraseology of the act, which were set at rest by a decision of the Court of Common Pleas of New Haven upon a writ of mandamus brought to compel the Secretary to issue a certificate of registration to Doctor Robert Watts, Jr., of New York city, who was registered at Greenwich. The Legislative Committee knew nothing of the court proceedings, or whether any contest, arguments or protest even, were made. It was apparently allowed to go by default. At least there was no appeal from this lower to a higher court. But the report of the Health Board speaks of it as a fortunate event. To the Committee it seems quite otherwise. The law of 1893 was bad enough in giving to everybody certificates of registration. It gave the state a humiliating list of quacks publicly recognized, but there was no question of legality. But this rush of outsiders to take advantage of some fancied ambignity of phraseology, thereby swelling the registration list, is certainly mortifying and deplorable. According to the report of the State Board of Health, three hundred and fifty-four men were registered in the year ending October 1st, 1897. And in one border town, Greenwich, one hundred and fifty-seven were registered, living in different parts of the country. All this was contrary to the intent and purposes of the law, and it is only right and honor-

able that those registrations after May 25th, 1897, should have their pseudo-certificates revoked.

Since July 15th, 1897, the law concerning examination has been strictly observed, and both from observation and reports is doing a good work. As soon as we can outlive the disasters of earlier and later registration, the whole aspect of medicine in the state will be changed. For no one can estimate the large number of incompetents fearing to come to this state on account of its Examining Board. And, according to the above report, of thirty-two of those applying, fifteen failed to pass the examination. So the state is no longer the dumping ground for worthless diplomas.

Accompanying the report of last year was the amended law which we failed to secure. This was printed in the Proceedings as the Proposed Practice Bill. The Committee recommend that it is important to secure the passage of these amendments at any suitable time, not making the mistake of attempting too much in any one year, so as to reopen the whole subject of legislation. The Committee would recommend as one of the most important items and first to be secured, the amendment to perfect the working of the Examination Board. This item of examination is the very best feature of our law. We need a careful selection of good, honest and strong men for examiners. The matter of service and remuneration should be carefully adjusted: not so economical that the desirable men cannot afford the time and trouble, nor so remunerative as to tempt the greedy and designing. Without data on this subject when the law of 1893 was passed and about the same inexperience in 1897, it is not strange that a revision should be needed. Under the present law, taking the number of sessions and the number of applicants as reported, each member of the committee would get five dollars per diem, out of which is to come all of his travelling and hotel expenses, to

say nothing of the extra time required in making up a set of questions and of examining the papers. This is really no fair remuneration. But in the proposed bill before referred to the applicant is to pay twenty-five dollars instead of ten dollars as now, and there are to be three sessions of examinations in the year. Taking the same data for calculation, the per diem would be thirty-three dollars, including expenses. This is the same as in New York State, but seems to the Committee a larger sum than is necessary. The Committee would recommend that the applicant pay the sum of twenty dollars and that the Board meet as proposed, on the second Tuesdays of March, July and November.

The other proposed amendments cannot be improved in the opinion of your Committee. Some time in the near future the State will have to meet the matter of State reciprocity. It is already proposed by some of the larger states to have an examining bureau in connection with medical colleges, which certificates of examination shall be current in all the states. This is not reciprocity. Connecticut must not delegate or relinquish its right in the matter of examination.

All of which is respectfully submitted.

M Storrs,
J. B. Kent,
J. W. Wright,
E. J. McKnight,
F. K. Hallock,
R. S. Goodwin,
N. E. Wordin.

The report was accepted and the Committee authorized to take some action to obtain the results required.

THE REPORT OF THE PUBLICATION COMMITTEE

was then read by the Secretary.

The Publication Committee read carefully and consid-

ered critically the papers which were presented by the Secretary. It was decided not to publish one of these papers, because it had previously appeared in the daily newspapers. Several others were returned to their authors without publication, because the Committee decided that the papers did not contain clinical observations of value, nor reflect the material judgment of the writers, based upon their personal experience. Few papers are worthy of publication which do not possess one or the other of these characteristics. Information came to the Committee, after a large part of the volume had been printed, that another paper was largely a reproduction of an article which had been published by another member of the Society in an earlier volume of the Proceedings. It is hardly necessary to add that if this information had been received sooner, the paper would have been rejected.

A few papers were published by the Secretary, which had not been submitted to the present Committee.

An innovation was made in discontinuing the alphabetical index, which for many years has been placed at the beginning of each volume, and in substituting for it a table of contents, comprising a list of the different subjects brought before the meetings, arranged in the order in which they are found in the printed volume. This was prepared by Dr. Eliot. It is believed that such a table of contents will enable the reader to obtain in a few minutes a more complete and satisfactory idea of the contents of the volume than was possible under the former arrangement.

Forty pages are occupied by the Report of the Committee on Matters of Professional Interest in the State. The Publication Committee recommend that the Society direct that in future this report shall not extend beyond twenty pages.

The Committee further recommend that the Society

change its rules, so that in future no reprint of any papers, except biographical sketches of deceased members, shall be furnished at the expense of the Society.

GUSTAVUS ELIOT.

Objection was made to the last two paragraphs by the Secretary, and on motion they were stricken out by vote of the Society and the report was accepted.

Dr. Segur presented the

REPORT OF THE NOMINATING COMMITTEE,

modified as had been made necessary by circumstances, the names of Doctors F. T. Simpson and R. A. McDowell having been substituted for Doctors O. T. Osborne and E. K. Root.

The Committee on Nominations respectfully report as follows:

President.

H. P. Stearns, Hartford.

Vice President.

C. S. Rodman, Waterbury.

Treasurer.

W. W. Knight, Hartford.

Committee on Matters of Professional Interest in the State.

F. T. Simpson, Ralph McDonnell,
S. P. Overlock.

Committee to Nominate Physicians to the Retreat for the Insane.

H. S. Fuller, E. P. Swasey,
E. K. Leonard.

Committee on Publication.

J. LaPierre, Gustavus Eliot.

Committee on Honorary Members and Degrees.

J. C. Kendall, H. L. Hammond,
Carl E. Munger.

Committee of Arrangements.

E. P. Swasey, C. C. Beach,
H. G. Howe, G. K. Welch.

Anniversary Chairman.

S. B. St. John.

Medical Examiner.

Max Mailhouse.

Dissertator.

C. C. Beach.

Alternate Dissertator.

F. W. Wright.

Delegates to American Medical Association, 1899.

W. L. Barber, L. D. Bulkley,
W. K. Tingley, W. S. MacLaren,
M. C. Hazen.

Delegates to the Maine Medical Association.

F. E. Morrell, F. M. Wilson,
Geo. Thompson.

Delegates to the New Hampshire Medical Society.

J. M. Benedict, C. N. Allen,
F. L. Day.

Delegates to the Vermont State Medical Society.

H. L. Hammond, W. H. Judson.

Delegates to the Massachusetts Medical Society.

J. E. Loveland, C. J. Fox.

Delegates to the Rhode Island Medical Society.

N. P. Smith, W. S. Hulbert,
P. H. Harriman.

Delegates to the New York State Medical Association.

H. L. Swain, O. T. Osborne,
W. L. Barber, A. B. Coleman,
E. P. Flint, Carl E. Munger,
C. S. Rodman.

Delegates to the New Jersey Medical Society.

C. V. Butler, J. B. Kent,
A. L. Hurd, C. H. Bill.

GIDEON C. SEGUR, Chairman of Nominating Committee.

Commenting upon the number appointed to the New York State Medical Association, Dr. Donaldson objected to sending so many to one Society and moved to amend the report by sending only two. An amendment was passed, appointing the first two named as delegates to the New York Association. The Secretary was then instructed to cast one favorable ballot for the candidates thus named, and they were declared elected.

Dr. Mailhouse, Secretary of the Medical Examining Board, presented the

REPORT OF THE COMMITTEE ON MEDICAL EXAMINATIONS.

To the President, Fellows and Members of the Connecticut Medical Society:

The Committee on Medical Examinations herewith presents its fifth annual report. Since the last meeting of the Society we have held six sessions and have examined thirty-eight applicants, the largest number in any one year since the enactment of the law of 1893. Of these thirty-eight, however, one withdrew after a feeble attempt at two papers and another was an unsuccessful midwife. This increase in the number of those examined is plainly due to the effect of the amendment passed in 1897; for among the candidates during the past year but two were without diplomas. The beneficent operation of the new law is exemplified by the large percentage of rejections. It is astonishing that notwithstanding the preaching of medical colleges as to their advanced requirements for entrance and lengthened courses they still grant diplomas to men so poorly equipped as were fifty per cent. of those who appeared before your Committee. The following is a fac-simile of an answer writ-

ten by one of the candidates examined during the past year, and who received a diploma in 1896 from a legally incorporated medical college:

"The Streptococcus you have feever bounding pulce loss of conshious and Death which very often produces haemostatic abscess."

Also: "In fracture, increased motion, dislocation, rigid motion."

What could have been the mental make-up of the faculty granting this man's diploma. Yet they grant many M.D. degrees annually, and were highly incensed because, previous to the passage of the amendment of 1897, a committee of this Society did not place the name of their school upon the list of legal and reputable medical colleges. The following is a list of the medical colleges represented by our candidates with a statement of the results of their examinations:

	REJECTED.	PASSED.
Albany Medical College,	1	0
Baltimore Univ. Med. College,	1	0
Baltimore Medical College,	3	*1
Bellevue Hospital Med. College,	1	1
Coll. P. & S., Baltimore,	1	2
Coll. P. & S., New York,	0	6
Columbia Med. Coll., Wash., D. C.,	1	0
Harvard,	1	0
Jefferson,	1	1
La Valle University,	1	0
Long Island Hospital Med. Coll.,	1	0
Milwaukee Medical College,	1	0
McGill University,	0	1
Rush Medical College,	0	1
Trinity Med. Coll., Canada,	1	0
University of Palermo,	1	0
University of Virginia,	0	2
University of New York,	0	1

*Previously rejected.

University of Genoa,	0	†1
Victoria Medical Coll., Canada,	‡2	0
Without Degree,	1	1
Total,	18	18

Withdrawn, 1.

Midwife.—Woman's Infirmary and Maternity Home, New York—one rejection.

A resumé shows that of those examined, eighteen passed, eighteen were rejected and one withdrew, not desiring to complete the examination. Also one rejected early in the year and passed later is reckoned but once and then among those who passed. Two candidates presented themselves who had been examined and rejected in the year previous; these are counted as new applicants; one of them passed and the other was rejected. The midwife who was examined and failed to pass, is not included in the above list, which is limited therefore to applicants for general practice.

Of the six sessions during the past year, one was held in Middletown, one in Bridgeport and the remainder in New Haven. It is proposed hereafter to conduct all the examinations in New Haven on account of its superior railway facilities. At one of the sessions there presented herself for examination a midwife, fifty-nine years of age, who could neither read nor write English, or for that matter German, her native tongue, sufficiently to understand or answer written questions. After a verbal conference she withdrew upon the recommendation of one of the Committee who satisfied himself of her incompetence. It was learned through this midwife, and later of others, that there are practitioners and also members of this Society who foster the work of unlicensed midwives and afford them protection by registering as their own, and over their own signatures, births attended

‡One of these rejected last year. †Rejected last year.

by these women. We desire to call the attention of the Society to this matter and recommend that radical action be taken to suppress the practice.

Information has also been received that a practitioner examined and rejected continued, for a while at least, to practice our profession.

Owing to the limit which we have been compelled to set to the duration of the examination, namely, two days, and the necessity of covering as much ground as possible, and after considering the methods in vogue in neighboring states we have finally adopted the plan of giving ten questions upon each subject, permitting the candidate to elect eight of these and then requiring a standard of seventy-five per cent. on these eight questions. This method has met with the approval of the examinees.

The old question of the calling together of the Committee within thirty days of the date of application as the law compels, is a continued source of annoyance and in reality a hardship; it entails endless correspondence with the individual applicants, numerous conferences with the Secretary of the State Board of Health and the various members of the Committee and is of no value to anyone except perhaps to some individual who may possibly have negotiated for the purchase of the practice of some retiring or deceased physician. We would beg of the Society to instruct its Committee on Legislation to remove this clause from the law if it does absolutely nothing else, and substitute in its place stated dates for examination, say three or four a year. Communications to us from the other State Examining Committees in Connecticut expressed similar views; our sentiments met with the approval of the entire Eclectic Board. The Homeopathic Committee stated that they had provisionally decided to hold but three examinations a year, unless compelled to do otherwise by the insistence of some applicant. In accordance with these expressions

and our own ideas we endeavored to carry out plans looking toward a lessening of the number of meetings. But our efforts were nullified by the letter of the law which compelled the Secretary of the State Board of Health to call for a meeting within thirty days after the receipt of any one application.

The Committee desires to call the attention of the profession in general to the following fact: The accompanying question, varying only in the nature of the drugs to be used, has been given at every examination recently and has been seldom selected and rarely correctly answered: "Write a prescription in Latin, unabbreviated, which shall contain four ingredients, to be used as a sedative, and explain the action of each remedy." It is astonishing to observe how very few graduates are capable of writing a simple prescription absolutely correctly.

With regard to suggestions for future legislation, in addition to what has already been said, we would like to point to the efforts of the National Confederation of Examining Boards toward unifying the work in all the States so that in time to come license to practice in one State may give the right to practice in all. With that object in view and as the first step in that direction we would suggest that further legislation be carried to the extent of placing our law on an equality with that of the State of New York and so secure recognition of our licenses by the Regents of the University of that commonwealth. This is a subject which the Committee on Legislation would have to consider carefully and the details of which must be left in their hands. We can but offer the general suggestion.

The Committee has been annoyed at various times by the receipt of letters from members of the Society and others testifying to the ability of certain candidates and asking us to show leniency for various reasons. We

humbly beg of you to refuse absolutely to write letters of this nature. The work of the Committee is sufficiently arduous, the answering of letters of all kinds (necessary and unnecessary) constant, and we find it obligatory upon us to no longer pay any attention to such communications. A man must stand or fall upon the merits of what he puts upon the papers, and which we read and which are placed on file with the Secretary of the State Board of Health.

It is for this meeting to select a member of the Examining Committee in the place of Dr. Max Mailhouse, originally appointed for five years, and whose term expires with the year 1898.

The following is a list of those examined and passed since the last meeting of the Society, May 25th, 1897:

Thos. J. McLamey, M.D., '97, Coll. of Phys. & Surg., Baltimore, of Ansonia, Conn.

F. H. Coops, M.D., '96, Coll. Phys. & Surg., Baltimore, of Danielson, Conn.

W. M. Hill, M.D., '97, Univ. of Virginia, of Goodground, L. I.

H. E. Smyth, M.D., '84, McGill University, of Glenbrook, Conn.

L. H. Stewart, no degree, Yale Medical School, of Rutland, Vt.

Jas. H. Andrew, M.D., '96, Bellevue Hospital Med. Coll., of Brooklyn, N. Y.

Michael Kelly, M.D., '97, Baltimore Medical Coll., of Warehouse Pt., Conn.

Chas. A. Goodrich, M.D., '96, Coll. of Phys. & Surg., N. Y., of Hartford, Conn.

Walter N. Thayer, Jr., M.D., '97, University of New York, of Dannemora, N. Y.

J. H. White, M.D., '96, Univ. of Virginia, of New York, N. Y.

W. G. Craig, M.D., '92, Jefferson Medical College, of Hartford, Conn.

Angelo Sissa, M.D., University of Genoa, Italy, of Hartford, Conn.

M. J. Brooks, M.D., '97, Rush Medical College, of Stamford, Conn.

J. Eddy Blake, M.D., '98, Coll. Phys. & Surg., N. Y., of Brooklyn, N. Y.

Burton J. Lee, M.D., '98, Coll. Phys. & Surg., N. Y., of New Haven, Conn.

Henry P. Mosely, M.D., '98, Coll. Phys. & Surg., N. Y., of New Haven, Conn.

Chas. M. Williams, M.D., '98, Coll. Phys. & Surg., N. Y., of Portchester, N. Y.

Chas. C. Osborne, M.D., '85, Coll. Phys. & Surg., N. Y., of New Canaan, Conn.

Appended is a set of the questions given at the last examination on May 17 and 18, in order that the members of the Society may see for themselves with what degree of fairness the examinations are conducted. It must be borne in mind that the candidate may select eight out of the ten questions on every subject and he is marked on the eight answered. Respectfully submitted,

MAX MAILHOUSE, Secretary.

EXAMINING COMMITTEE, CONNECTICUT MEDICAL SOCIETY.

New Haven, May 17-18, 1898.

Materia Medica and Therapeutics.

1. Compare the physiological action of Opium and Belladona.
2. Give the origin of pilocarpin and its physiological action.
3. Define the following terms: Analgesic, anesthetic, epispastic, antiseptic, hypnotic, mydriatic, and emmenagogue.
4. Give the officinal name and dose of the remedies used in the treatment of intestinal parasites.

5. Name three heart stimulants, their dose, and their mode of action.
6. Upon what portion of the intestinal tract do the following drugs act: Aloes, rhubarb, salines, castor oil and calomel; and in what way do they produce their effect?
7. Give the treatment for acute Nephritis.
8. Give the treatment for Sciatica.
9. What are the different preparations of Mercury, and their therapeutic uses?
10. How would you treat Cholera Infantum?

Surgery and Pathology.

1. What is an Aneurism, and what changes take place in the vessel?
2. Differentiate between Caries and Necrosis.
3. Give the pathology of each.
4. Differentiate between subglenoid dislocation and fracture of the neck of the humerus.
5. What are the causes of intestinal obstruction?
6. What would you do in intestinal obstruction?
7. Describe the operation for strangulated direct inguinal hernia and give the coverings.
8. Differentiate between femoral hernia and Psoas abscess.
9. Give the etiology and pathology of dry gangrene.
10. Describe the operation of ligation of the Axillary Artery, and give its relations.

Physiology.

1. Describe the nervous mechanism of respiration.
2. Describe the intestinal mucous membrane.
3. What is the normal temperature of man, and how is it maintained?
4. To what class of foods does lean meat belong, and where is it digested?
5. What is the function of the oculomotor nerve?

6. What are the three properties of the human voice?
7. Describe a complete nerve.
8. What histological changes take place in a muscle-cell during stimulation?
9. What is latent heat?
10. What is the difference between the blood in the portal and hepatic veins?

Obstetrics.

1. What are the differences between a male and a female pelvis?
2. Describe a justo-major pelvis.
3. What are the causes of mastitis?
4. What are the diseases or disorders to which a woman is subject during the pregnant condition?
5. What is the etiology of phlebitis following pregnancy?
6. How would you recognize a face presentation, and how would you treat it?
7. What are the infallible signs of pregnancy?
8. What are the causes of sterility?
9. What are the anatomical structures composing the umbilicus?
10. Describe the circulation of the blood in the fetus.

Chemistry and Hygiene.

1. Give the chemical formulae for sulphuric acid, hydrochloric acid, and ammonium carbonate.
2. Give two reliable tests each for albumen and sugar in the urine.
3. Name all the chemical elements found in proteids.
4. Give the chemical composition of gastric juice.
5. What chemical compound enters most largely into the composition of the human body?
6. What diseases, arising in your practice, would you report to the health-officer?
7. What symptoms in a fever patient would lead you to report the case as typhoid fever?

8. What are the dangers from measles, and how would you limit the spread of the disease?
9. Give the differential diagnosis of small-pox, chicken pox and measles.
10. Name the diseases liable to be conveyed by the careless physician, and state the precautions you would take to avert these dangers in your practice.

Anatomy.

1. Name the branches of the external carotid artery.
2. Give the superficial origin of the pneumogastric nerve, and describe its course until it reaches the root of the neck.
3. Name and describe the extrinsic muscles of the pinna.
4. Describe the retina.
5. Describe the internal saphenous vein.
6. Locate and briefly describe the superficial and deep palmar arches.
7. Name and briefly describe the ligaments of the hip joints.
8. Describe the differences in the sacrum of the male and the female.
9. How would you distinguish a lumbar from a dorsal vertebra?
10. What muscles of the arm and trunk are brought into action in delivering a blow straight from the shoulder?

Practice, Diagnosis and Pathology.

1. Give the clinical history and physical signs of insufficiency of the aortic and mitral valves, and the diagnosis between the two.
2. Differentiate Asthma from Edema of the Lungs.
3. Define anemia and leukemia, and give the microscopical differences in the blood.
4. Name the parasitic diseases of the skin and the parasite causing each.

5. Name and describe the principal classes of bacteria.
6. What pathological changes in the kidney occur in chronic interstitial nephritis—small contracted kidney?
7. Differentiate pneumonia from pleurisy in its various stages, acute and chronic.
8. What are the causes of hemorrhage from the stomach and intestines?
9. Give the symptoms of a tumor developing in the cortical motor area of the brain.
10. Name, describe and explain the formation of the various normal and abnormal respiratory sounds heard by auscultation.

In addition to his report Dr. Mailhouse read a letter from one of the defeated candidates, which, he said, was a sample of many received. The papers of the ignorant are hard to examine and pass upon. It is easy to go over the papers of an educated person. The correspondence of the Committee is endless and makes a great deal of trouble.

The report was accepted and the recommendations referred to the Committee on Legislation.

The Committee on Arrangements gave notice of the tickets, price two dollars, to the banquet at the New Haven House at 7:15, Thursday. We will get at the toasts early, so that gentlemen can hear the speaking and leave for home the same night.

Dr. Flint, of the Auditing Committee, reported the Treasurer's account correct, and the report was accepted.

Dr. Harold Metcalf of Wickford, R. I., a Delegate from the Rhode Island State Medical Society, being present and not being able to be at the meeting to-morrow, was here called upon. He said: The Rhode Island State Medical Society sends a greeting to the Connecticut Medical Society. Rhode Island is a state where individualism is rampant. It was founded by and has acquired the

reputation for cranks. We have had cranks and quacks, but there are many who are not of either class. We have succeeded fairly well with you in getting rid of them. I want to warn you not to try to get too much legislation. Our State, in trying to obtain something, nearly lost its vaccination law. Sometimes, I think, there is too much legislation. The profession is in danger from its own members as much as from quackery. There is danger from commercialism, the profession getting into a trade. We should not legislate too much in our own favor.

Dr. Hallock moved that Doctors Burke and Turner be exempted from taxation. This, he said, was in accordance with the vote of the Middlesex County Association. The motion was passed.

The meeting of the Fellows thereupon was declared adjourned.

THE ANNUAL CONVENTION.

WEDNESDAY, MAY 25, 1898.

The mass meeting was called to order immediately after the adjournment of the meeting of the President and Fellows.

The first item was the reading of the

SECRETARY'S REPORT.

The affairs of our Society continue to move quietly and prosperously. The membership is 646. This is a gain of twenty-six over last year. The gains and losses are more evenly distributed than usual, and the net gain is quite up to the average. Six years ago the membership was 524—a gain of 122 in six years, or an average of a little more than twenty yearly. Of new members we have to report fifty-one. The losses are, from death, fifteen; from removal out of the State, nine; removal within the State, locality not reported, two. Not one has been dropped for non-payment of dues; none have resigned. This surely is most cheering and denotes an increased interest in the Society.

The changes by Counties are as follows:

Hartford, 142, a net gain of 5.

New members,	10	
Deaths,	3	
Removals,	2	
	—	5

New Haven, 189, a net gain of 13.

New members,	17	
Deaths,	2	
Removals,	2	
	—	13

New London, 50, a net gain of 3.

New members,	5		
Death, . .		1	
Removal,		1	
		—	3

Fairfield, 122, a net gain of 5.

New members,	9		
Deaths, .		2	
Removals out of State,		2	
		—	5

Windham, 35, a net gain of 1.

New members,	4		
Death, . . .		1	
Removals out of State,		2	
		—	1

Litchfield, 50, a net gain of 1.

New members,	2		
Removal out of State,		1	
		—	1

Middlesex, 40, a net loss of 2.

New members,	2		
Deaths, .		3	
Removal out of State,		1	
		—	2

Tolland, 18, a net loss of 1.

New members,	2		
Deaths, .		3	
		—	1

Of fifty-one new members, twenty-seven, more than half, go to Hartford and New Haven Counties. It will be noticed that Litchfield and New London have each the same number of members, 50, and it will be interesting to watch the progress of their growth in the future. The following is a list of new members, with their present residence and place and date of graduation:

Michael Henry Gill, Yale, 1896, Hartford.
John Butler McCool, P. & S., N. Y., '94, Hartford.
Arvid Anderson, Univ. Michigan, '93, New Britain.
John Wellington Felty, Jefferson, '84, Hartford.
Henry Augustus Deane, Dartmouth, '68, South Windsor.
Harris Lee Paige, Jefferson, '96, New Britain.
George Everett Sleeper, Dartmouth, '95, Hartford.
Thomas Francis Reardon, Univ. Vt., '94, Enfield.
Henry Hubert Smith, Jefferson, '77, Whitneyville.
William Sprenger, Univ. Vt., '91, New Haven.
Joseph Bernard Monahan, Dartmouth, '94, New Haven.
Frederick Courtney Bishop, B.A., Yale, '72, New Haven.
James Henry, Yale, '95, New Haven.
Joseph Flynn, Yale, '95, New Haven.
Thomas Joseph Kilmartin, Univ. N. Y., '95, Waterbury.
Frank Alonzo Kirby, Columbian Univ., Washington, D. C., '95, New Haven.
Charles Dickinson Phelps, P. & S., N. Y., '95, New Haven.
William Joseph Sheehan, B. S., Manhattan, '92, Yale, '95, New Haven.
Clifford Walcott Kellogg, Yale, '96, New Haven.
John Francis Sullivan, B. A., Yale, '90, P. & S., N. Y., '94, New Haven.
Charles Henry Robbins, Baltimore Med. Coll., '95, New Haven.
Louis Michael Gompertz, Yale, '96, New Haven.
Charles Werdin Holbrook, M. A., Amherst, '93, Yale, '96, East Haven.
Daniel Joseph Maloney, Univ. N. Y., '96, Waterbury.
Alfred Goldstein Nadler, B. A., Yale, '93, Yale, '96, New Haven.
Theodore Edward Beard, Jr., Yale, '97, New Haven.
Harry Eugene Higgins, Univ. N. Y., '96, Norwich.
James Thomas Mitchell, Univ. N. Y., '91, Colchester.
James Brown Griswold, Dartmouth, '92, New London.
Herbert H. Howe, Univ. Vt., '80, Yantic.
William Francis Gordon, L. I. Coll. Hosp., '96, Danbury.

Wright Butler Bean, P. & S., N. Y., '95, South Norwalk.
Harry Willard Fleck, Univ. Penna., '96, Bridgeport.
Joseph Lain Hetzel, Bellevue, '91, Southport.
Thomas Long Ellis, B. A., Yale, '94, Yale, '96, Bridgeport.
Charles Rodman Townsend, Albany Med. Coll., '95, Bridgeport.
Michael James Rowe, Coll. P. & S., Baltimore, '96, Bridgeport.
Jacob Michael Nolan, Coll. P. & S., Baltimore, '94, Westport.
Louis Hawley Wheeler, Yale, '97, Westport.
Charles Childs Gildersleeve, Yale, '96, East Woodstock.
James Lester Gardner, Univ. Vt., '81, Central Village.
Frank Harvey Coops, P. & S., Baltimore, '96, Danielson.
Clarence Simonds, Univ. N. Y., '97, Danielson.
Abram James Barker, Bellevue, '97, Torrington.
Charles Henry Carlin, Univ. Mich., '96, Torrington.
William David Spencer, P. & S., N. Y., '76, Saybrook.
Charles Daniel Strong, Yale, '93, Westbrook.
Daniel Sullivan, Univ. N. Y., '97, Stafford Springs.
Philip Henry Edwards, Univ. N. Y., '95, South Coventry.
James Herbert Standish, Univ. N. Y., '95, Hartford.
Harry Bried Rising, Yale, '95, South Glastonbury.

Of these, four are academic graduates of Yale, one is a Bachelor of Science from the Manhattan College, one has the degree of M. A., from Amherst. Their medical degrees are distributed among the colleges as follows:

Yale, fourteen; University of New York, eight; College of Physicians and Surgeons, N. Y., five; Dartmouth and University of Vermont, four each; Jefferson and College of Physicians and Surgeons, Baltimore, three each; Bellevue and University of Michigan, two each; and one each from the University of Pennsylvania, Baltimore Medical College, Long Island Hospital College, Albany Medical College.

Fifteen have died. The record is a surprising one:
John Calvin Bolles, Vt. Med. Coll., 1840.
Francis Lemuel Dickinson, Yale, 1840.
Charles Henry Rogers, Yale, 1847.
Albert Brownell Worthington, Yale, 1847.
Robert Hubbard, Yale, 1851.
Henry Spalding Dean, Jefferson, 1852.
Frederick Levi Dibble, Yale, 1859.
Thomas Henry Rafftery, P. & S., N. Y., 1866.
Frederick Miller Cannon, Univ. N. Y., 1867.
Selden Walkley Noyes, Univ. Pa., 1868.
John Dwyer, Univ. N. Y., 1871.
James Olmstead, Yale, 1874.
Charles Anson Fox, P. & S., N. Y., 1881.
William Freeman French, Univ. N. Y., 1884.
James Francis Donahue, Univ. Vt., 1892.

At the centennial meeting in 1892, your Secretary gave a list of thirteen members who at that time had been members for fifty years. Among these were Doctors Bolles and Dickinson, who now head the list of the dead. But two of the thirteen are left to us. Both were graduated or were licensed the same year, and both appear first upon the records of our Society as members in 1841, Dr. Bolles from Montville, the place where he was born, lived and died, and Dr. Dickinson from Willington.

Dr. Bolles was born in 1816. There are few such examples of stability as his plain life reveals to us. To have lived more than fifty years without death, illness or other misfortune invading the home, is granted to few men. His fifty-five years of country practice was unbroken by a single vacation, and he was a regular attendant upon the meetings of the New London County Medical Association. In '49, '55, '56, '58, '90 he was present as a Fellow, and in the latter year both Doctors Bolles and Dickinson served as members of the Auditing Committee.

Dr. Dickinson has been somewhat more active in the

meetings of the Society, although he has contributed little literary work. He has been present as a Fellow during the sessions of '45, '48, '53, '56, '60, '61, '88, '90 and at those times he took an active part in the discussions. He served on various Committees, the most important of which was the Committee appointed in 1884 to arrange for the dissolution between the State Medical Society and the Medical Department of Yale College. As chairman of this Committee he made the report in 1885. When this Society met at Rockville, in 1863, Dr. Dickinson presided at the annual dinner, in accordance with a vote passed the year before. In 1874, '78, '84, '86 and '87, he was President of the Tolland County Medical Association. On only three occasions was he absent from the State Society when an election to some position called him thither. Surely these men after a service of fifty-eight consecutive years have been faithful unto death. Surely they have received a crown of life.

Seven years later, graduated in the same class at Yale, Doctors Rogers and Worthington. During the past year they have both passed away. Charles Henry Rogers was a graduate of Yale of the academic class of 1844. He joined the Connecticut Medical Society in 1848. On October 4, 1861, he received from Governor Buckingham a commission as Second Assistant Surgeon of the Tenth Regiment, C. V., and was within a few weeks promoted to First Assistant Surgeon, 11th C. V. He rejoined the Society in 1869.

Dr. Albert Brownell Worthington was a native of Colchester and spent his early days there. He faithfully filled his appointments in this Society. Perhaps the most important of these was as member of the Committee on County Resolves in 1879, when the Fairfield County Medical Association had voted to expel Dr. Moses B. Pardee of South Norwalk for consulting with homeo-

paths. The State Medical Society endorsed the action of the County Association. (Proceedings, 1879, p. 22.) In 1883 he was President of the Middlesex County Association.

Among the list of the dead is one ex-President of the Society, Robert Hubbard of Bridgeport, elected our presiding officer in 1877, and whose address before the Convention in 1878 was on the Mutual Relations of the Public and the Medical Profession.

The death of Dr. Frederick Levi Dibble of New Haven was announced to your Secretary some time after the Report of the New Haven County Medical Association had been received. It is therefore the most recent one of them all and occurred in Macon, Ga.. Dr. Dibble's name stands fifth on the New Haven list of members.

He joined the Society in 1860, but did not remain in it long. He entered the service of the Government at the very early part of the war, being commissioned as Surgeon of the 6th Regt., C. V., on the second of September, 1861. He went with his regiment on the expedition to Hilton Head, S. C He remained with his regiment until the expiration of his term of service, when he was discharged and returned to New Haven. He never served as Fellow, but contributed two interesting monographs to the Proceedings; one on Hydrophobia, in 1869, and one in 1867, Hygienic Teaching of the Late War.

These ten pages are written in a very clear and forcible style. He holds forth the idea that man by proper living and clothing, by following the rules of hygiene, may overcome unhealthy surroundings. "There have been hopeful men, and the class is not yet extinct, whose faith in the ultimate perfectibility of the human race is so tenacious that they look forward to the era when man by education and reflection will so far comport himself in harmony with, and in subjection to, his moral nature, as to render superfluous the enactment of statutes to

prevent infractions of moral law." This was but the beginning of what was afterwards a vigorous opposition to all so-called sanitary laws, against which he argued both in person, in the public press and in his well-known publication.

Dr. James Olmstead deserves more than a passing notice because of the service he has rendered to the medical profession and to the State. Ever since his appointment as Superintendent of the Connecticut Hospital for the Insane at Middletown, as the successor of Dr. Shew, he has given to that institution a most unremitting, constant, conscientious service. The world outside has been only an object of thought, a place whence to draw material for his purpose, which was the welfare and improvement of the inmates about him. It is no wonder that he broke down in what should have been his prime, a martyr to his profession, a benefactor to humanity.

I wish to testify to the promptness of most of the County Clerks in sending their annual reports, as well as to their correctness and completeness. Many of the papers for publication have been sent and most of the obituaries are already in my hands.

There is a growing improvement in this, the most important part of the working of the Society. Having testified to the good work of the Clerks, it is but fair that the Secretary should acknowledge his short-comings. For some reason, an oversight, the Report of the Committee on Honorary Members and Degrees was omitted in the last Proceedings. Amends can be made however by placing it here and putting on record the election to Honorary Membership of Doctors William T. Tusk, James W. McLane and Landon Carter Gray of New York, and the naming for Honorary Member, Dr. Francis Holme Wiggin of New York.

The resolutions presented this year from three dif-

ferent counties bring up the thought that the graduates of the last fifteen years, and they are hundreds, have come to us without any knowledge of our Code of Ethics. Your Secretary therefore will suggest to the Committee of Publication that the Code of Medical Ethics, with the constitution and by-laws of this Society, be published with the Proceedings of this year, and that separate copies of the same be made for future issue to members as they join the Society.

An unusual number of specially prepared papers are presented for our meeting this year and it is hoped that the Convention will prove to be one of unusual interest.

Reports of Delegates were called for. Some of them had already responded by letter that they had not been able to fill their appointments. Among these were Dr. Higgins, Delegate to Maine; Dr. Welch, Delegate to Vermont, and Dr. Benedict, Delegate to Massachusetts.

Dr. Hammond, Delegate to the Rhode Island State Medical Society, said that the three appointed to go to Rhode Island were all present and the little state did the grand thing in caring for us. Among the addresses, one by Dr. W. L. Munro, The Physician on the Witness Stand, was an able paper on the law governing witnesses. It was directed that copies of it be made in pamphlet form, for distribution. Dr. F. C. Shattuck of Boston, delivered, at 12 M., an address on Specialism, the Laboratory and Practical Medicine. Dinner was served at 1 P. M. Rhode Island is a small spot, but it is nicely endowed with a large body of highly scientific men. She always extends to her guests a hearty and cordial welcome.

Dr. Rosavelle Philip presented her report in writing:

DR. N. E. WORDIN, Secretary, Connecticut Medical Society,

Dear Doctor:

I have the honor to report to you as delegate to the Rhode Island Medical Society, June 3, 1897. The

Society's reception was most cordial. The few remarks I ventured to offer concerning the new Medical Practice Act were warmly applauded.

The large membership present at the opening of the session was remarkable, and the despatch in the transaction of business was most commendable. A notable item of the Society's work was the offering of a prize of $350.00 for the best essay on the subject, "The Neuron Theory as Related to Brain and Nerve Disease, in the Light of the Most Recent Investigations."

Two papers were presented: One by Dr. F. C. Shattuck, of Boston, on Specialism, the Laboratory and Practical Medicine. The second paper by Dr. W. L. Monro, The Physician on the Witness Stand, was most scholarly and convincing. The Society voted thanks to Dr. Monro for this able paper and ordered the printing of five hundred copies at the Society's cost for distribution to every physician, lawyer and legislator in the State, "as a basis for initiating legislative action."

The annual dinner was most elaborate, and delightfully served. The toasts were timely and bright with sparkling humor, "A feast of reason and flow of soul."

The charming hospitality to the delegates, added to the scientific value of the meeting, made the day most memorable.

Sincerely Yours,

ROSAVELLE G. PHILIP.

Stamford, Connecticut.

Dr. MacLaren was present at the meeting of the New York State Medical Association, but having been called home from the present meeting, by telephone, on account of death in his family, he was not able to render any report.

Dr. Shelton fulfilled his duty as delegate to the New York meeting. Was present with them last October. The meeting was at Mott Memorial Hall. He attended

five sessions. The papers were able and well discussed. One of them was on The Abuse of Medical Charities, read by Dr. Wiggin. The attendance was disappointing. There were but thirty or forty present. But if it was lacking in numbers, it did not in interest shown. He did not meet any member of the Reception Committee, but at the close of the meeting registered, made himself known, and became entitled to a copy of the Transactions.

Dr. Lindsley for the American Medical Association said he was not a delegate but that he was present. It was the largest gathering the Association had ever had, and there was more enthusiasm.

Dr. C. B. Graves sent a written report:

Mr. President and Gentlemen:

It was my privilege and pleasure to attend as your delegate the '97 meeting of the American Medical Association at Philadelphia.

As befitted the fiftieth anniversary, the meeting was one of the largest and most enthusiastic in the history of the Association, and the program was carried out with immense success. To report this meeting in any great detail is entirely apart from my purpose. Such a report has probably been read by many of you in the Journal of the Association. I will simply refer very briefly to some of the features which struck me as most interesting.

The address of the President, Dr. Senn, upon "The American Medical Association," was characterized by his well-known vigor of style and delivery. It was a striking statement of the claims of the Association upon the physicians of this country, and an eloquent appeal for their loyal support.

The discussion attending the reading of the report of the Rush Monument Fund aroused intense excitement and enthusiasm, and the canvas of the Association by States resulted in a few moments in the pledge of many

thousand dollars to this object. This must have carried great delight to the heart of Dr. Gihon, who for many years, as chairman of the committee, had worked so hard and faithfully for the cause of the fund, with up to that time such a paltry result.

On the second day, following the interesting address by Dr. Austin Flint on "Stercorin and Cholesteraemia," short speeches by Gov. Hastings and President McKinley added some éclat to the proceedings. At this meeting, also, Dr. H. C. Wood in a brief but very vigorous speech presented a resolution, which was promptly passed, voicing the earnest protest of the Association against the passage of the Anti-Vivisection Bill already favorably reported to the United States Senate.

The exercises of the third general session were of unusual interest. The "Address on Surgery" by Dr. Keen was a most eloquent and brilliant effort, and was received with frequent bursts of applause. It seemed to me far and away the finest thing I heard.

The Jubilee Exercises, including the address by the venerable founder, Dr. N. S. Davis, and letters from two other original members, were interesting and impressive.

The chief events of the fourth general session were the admirable address upon "The Prevention of Tuberculosis" by Dr. John B. Hamilton, and the announcement of the officers elected for the ensuing year.

I can only allude to other matters, chiefly of business, which were acted upon at these general sessions, such as: The appointment of a committee to organize within the American Medical Association a relief association for the benefit of disabled physicians and the widows and orphans of deceased members; the passage of a resolution pledging the Association to secure if possible "such laws as will regulate by national examining boards the right to practice medicine in the United States"; the appointment of a special committee of

transportation with the object of securing the most advantageous railroad rates and choosing subsequent places of meeting with reference to that; the return to the former policy of the Association in the annual offer to members of a gold medal to be awarded for meritorious scientific work, and the vote to send to each United States Senator and member of the House a copy of the resolution protesting against the passage of the Anti-Vivisection Bill, together with an extract from Dr. Keen's address bearing upon the same.

The programs for the various section meetings were bewilderingly long and rich. Indeed it seemed to me that too much work was laid out. The fact that many of the papers were read by title only, shortened the lists considerably, but even then the number of papers was large enough to restrict full discussion. As a result of the length of the programs and the omission of so many papers, it was impossible to tell at what time any given paper would come on or whether it would be read at all, so that one could not go about among the various sections, as a general practitioner might feel inclined to do, with any hope or expectation of hearing only those papers in which he might be particularly interested.

The section on the Practice of Medicine, which I frequented for the most part, was well attended, and many of the papers which I heard there were exceedingly interesting.

With regard to the provision for the entertainment of members it goes without saying that it was most generous, even lavish. The Entertainment Committee, coöperating with the various medical schools and societies, the hospitals, clubs, and even medical publishing houses, spared no pains to make this visit to Philadelphia a memorable one for the members and their wives.

I did not go to Atlantic City, but the excursion is said to have been well patronized, and hugely enjoyed.

Respectfully submitted,

CHARLES B. GRAVES, M.D.

Dr. E. K. Root, who was present at the International Medical Congress, Moscow, presented the following written report:

THE TWELFTH INTERNATIONAL MEDICAL CONGRESS

was held in the city of Moscow from the nineteenth to the twenty-sixth of August, 1897. It was, perhaps, the most largely attended of any scientific gathering and was an especially interesting one, not only on account of the many eminent men of the medical profession who met and exchanged views on that occasion, but also from the fact that Moscow is a comparatively little visited city by the average traveler, and on account of the Congress, unusual facilities were afforded by the Russian government as well as by Russian citizens at large to make their city attractive for foreign visitors. Any attempt to give an even partial account of the scientific work of the Congress is impossible when one realizes the magnitude of the work there carried on. Over seven thousand medical men from all parts of the continent of Europe, as well as from North and South America, gathered together in Moscow during the six days of its session. Over nine hundred papers were actually read and discussed or read by title, and will appear in the Transactions. Moreover the sessions were held, as was essential, in numerous sections and sub-sections, and all that was possible for any visitor was to follow more or less closely the work of one particular section in which he was particularly interested and attend the three great general sessions in which all members of the Congress participated. It would seem, therefore, that a running description of what was seen in and about Moscow during our stay

might prove of interest to our members never having visited Russia. Certainly the sights seen were unique.

The country presents many national peculiarities and has little in common with the continent of Europe now so well known by all travelers. The individuality of the Russian people preponderated over all the ordinary and common-place customs met everywhere now among civilized people. Early in the spring the Russian government announced that all travelers belonging to the medical profession, intending visiting Moscow, would be provided with free transportation from the frontier to the city, and again to the frontier on presentation of proper credentials. This generous offer turned out to be, in the judgment of many, a great misfortune. It attracted to Moscow an enormous crowd, many of whom were in no way interested in the transactions of the Congress but who swarmed all over the city, crowded the trains, and in every way hampered and incommoded those there for serious scientific work. Moreover, the attendance proved far greater than the authorities had anticipated. The result was crowded trains on all the lines and a very considerable degree of discomfort in traveling toward Moscow. When it is recollected that Moscow is as far from Berlin or Vienna as New York is from St. Louis, the annoyances attendant upon overcrowded trains, restaurants where it was impossible to find seats, and the totally inadequate supply of sleeping cars will be fully appreciated.

On reaching the frontier at Granitza, all passports were examined and our passes and credentials to the Congress re-stamped before taking the train for Moscow. On the train, before reaching Moscow, printed circulars (in the French language) were distributed, announcing to all strangers that a corps of students from the University would be stationed to meet all trains, each distinguished by a red, white and blue rosette, prepared to speak all

languages and to offer all assistance to incoming travelers. These young gentlemen proved to be a great assistance as interpreters, guides and friends; they were, moreover, stationed at the central meeting-place of the Congress, and I for one have never ceased to wonder at the polyglot accomplishments of these young gentlemen from the Moscow University. Numbers of them appeared to speak French, English, German, Italian, Hungarian, Swedish, and I don't know how many more languages, with equal facility and courtesy. At the station, also, was a bureau of information where those who had secured lodgings by correspondence received proper credentials and information directing them towards their destination. The Committee of Arrangements had received through the courtesy of the Grand Duke Serges, the military commander of Moscow, use of the enormous Military Riding School, a huge building somewhat after the fashion of the First Regiment Armory, only some sixteen times larger. In this were located the headquarters of the General Committee, telephone, post and newspaper headquarters, the railway ticket office, a restaurant and meeting place for each of the twelve sections. Through this enormous building poured daily a polyglot crowd representing all the nations under the sun, and in it could be seen all of the distinguished men of the profession, if one was so fortunate as to have a guide to point them out. This became the general meeting place of the members of the Congress. Between the general section meetings all would meet, chat, talk over their experiences and plan excursions for the day or the day following, and indulge in unlimited Russian tea, beer, kewass, caviar sandwiches, and other national delicacies.

The first general meeting of the Congress took place in the Grand Opera House and was opened in due state by His Imperial Highness, the Grand Duke Serges, as representing the Emperor. The house was packed with

a highly interesting audience. All the military surgeons, representing their respective governments, appeared in full uniform with all their decorations, and as the representatives of the continental powers largely predominated over the English and Americans, the effect was brilliant in the extreme. Members wearing the badge of delegates were provided with seats on the stage, and the boxes were filled with ladies all in full evening attire. To do honor to the Grand Duke it was required that all present should appear in full evening dress. So, for the first time probably, our party attired themselves in swallow-tails and white ties in the full blaze of a mid-day August sun.

The Grand Duke opened the proceedings by announcing in a half dozen words in French that the Twelfth International Congress was opened. Then followed the opening address of the President of the Committee of Organization, Professor Sklifossowsky; the report of the General Secretary, Professor Roth, and the introduction and responses of the representatives of the National Committees and delegates from all the governments. Many distinguished men responded for their respective governments, each in the language of his country, save that the Japanese spoke in German and the representatives from South America and Mexico in French. By some misunderstanding our own representative, Professor Sternberg of Washington, was not provided with a seat on the stage and was not then recognized as the delegate of the United States Government. The call for the United States representative was responded to by Dr. Thayer of Baltimore, the clinical assistant of Professor Osler of Johns Hopkins. Then followed the address of Professor Virchow on "The Relation of Arteries to Inflammatory Processes." Professor Virchow was received with immense enthusiasm, and his address listened to with closest attention. The paper by Professor

Lauder Brunton was read by title; then Professor Lannelongue held forth on the "Therapeutics of Tuberculosis" from a surgical standpoint. In the evening was announced a general reunion of all the members of the Congress in the great Commercial Arcade, a most magnificent entertainment attended by all the Congress and their friends and enlivened by several military bands, a full orchestra, a choir of Russian peasants, gypsies and a company of Cossacks, the proceedings terminating by the band playing national airs in which all the audience joined in singing to the best of their ability.

The next day section work commenced in earnest. The Congress was divided into fourteen sections: Anatomy, Physiology, Pathology and Pathological Anatomy, General Therapeutics, Diseases of the Internal Organs, Diseases of Children, Diseases of the Nervous System and Mental Diseases, Dermatology, Surgery including Dentistry, Military Medicine, Opthalmology, Diseases of the Ear and Throat, Obstetrics and Gynecology, and Hygiene, Public Health and Sanitary Science.

Many of these were sub-divided into sub-sections for convenience in discussion. The meetings were held in the various rooms of the University, not far from the general meeting-place, and were fully attended and closely followed. There was little new to be noted in the procedure. The President and Secretary and other officials performed their functions precisely as is done in the Hartford County Medical Society; except that the members spoke in French, German or English, one would note no difference from our own meetings here. The Russian language was not used during the Congress.

The second general session was held on the 22d of August, as before at the Opera House, but not being ornamented by the presence of the Grand Duke no restrictions were placed upon all appearing in such garments as they had with them. Professor Crafft-Ebing,

of Vienna, read a long and interesting essay on "The Causation of Progressive Paralysis," drawing attention in particular to the rôle played by syphilis in those diseases. Professor Senn of Chicago spoke on the "Classification and Surgical Treatment of Acute Peritonitis," and was well received and applauded; Professor Metchnikoff on "The Plague," and Professor Robert on "The Characteristics of Human Pathology in its Relation to Treatment." The average work of the sections was usually finished early in the afternoon; then the members gave themselves up to sight-seeing, visiting the many points of interest in Moscow, as well as the public institutions, hospitals, foundling asylums, insane asylums, etc., where special facilities for inspection were granted.

The small badge of membership of the Congress proved to be a key which opened all doors in the city of Moscow. All of us were treated with immense consideration and courtesy. By special orders of the government, museums, palaces, treasuries, monasteries, churches—all objects of interest—were held open and free for all members of the Congress, and nothing could exceed the courtesy and kindness shown by the citizens as well as the officials in their treatment of us. The entertainments given by the municipality and by the physicians of the city were on a scale of magnitude far beyond any we had ever seen. There was a special committee of the ladies of the city, sitting in permanent session to receive, entertain and provide for the amusement in every way of the ladies accompanying the visitors. On the second evening there was a grand promenade concert given by the physicians of the city in honor of their guests which included a full orchestral program and many solos by celebrated artists, all being given in a beautiful concert garden on the outskirts of the city. There was also a large ball, a sacred concert by the trained choirs of two of the largest churches of the city, and finally, but too late for most

of our party to attend, a grand garden party by the Grand Duke and Duchess at their summer palace on the outskirts of the city. Special arrangemeuts were also made by the railway authorities for excursions to various suburbs, to the Monastery of Saint Serge, to Nijni Novgorod, and special round-trip tickets were arranged for long excursions to the Caucasus Mountains, to the Crimea and to Petersburg and return. Most of the members present formed themselves in small groups, and as time afforded visited the various sights during their ten days' stay in the city.

The last general session was held again in the Opera House and was opened by Professor von Leyden, of Berlin, on "The Treatmcnt of Tuberculosis"; Professor Lombroso, of Turin, on "The New Views and the New Application of Psychiatry," and finally, Professor Loukianov on "The Starvation of Cell Nucleus."

At the close of the general meeting the Congress was declared adjourned until their meeting in Paris in 1900. It is quite impossible in any reasonable time to attempt any résumé of the papers read or of the subjects treated. The greater number of papers and the most active discussion took place in the section of the Diseases of the Nervous System, where one hundred and eighteen papers were read and discussed, and the section on Surgery where one hundred and forty-four papers and discussions took place. Much interest was excited in the section on Sanitation by reports from various parts of the world on the various methods of filtration of drinking-water and the purification of sewage. Modern scientific methods in this department are now in force in nearly all of the larger continental cities, and in that particular our own country stands far in the rear of continental Europe. In surgery we need fear no comparison. Our methods, our technique and our results are admitted by competent judges to be equal to any. The same may

be said of diseases of the internal organs, diseases of children and in the specialties. In the more scientific branches, however, in psychology, physiology, pathology and bacteriology we must still go to the Germans, to the French, to the Russians, and even to the Japanese, for the latest developments in their respective branches.

Of the hospitals and public institutions we visited I can only say they are as perfect as unlimited money and the best technical skill of the country can afford. Nothing could be finer, more complete in every detail, more luxurious even, than the new hospital now being completed in Moscow, or the new insane asylum which is just outside the city. This asylum was provided not only with completely equipped buildings for the care of patients, but a perfectly appointed library and reading rooms for the medical staff, a complete outfit for bathing, application of electricity, and for the treatment of their patients. The great Foundling Asylum in Moscow is an enormous institution, receiving annually some twenty-five thousand foundlings, and in its detail, management and organization shows the highest technical skill as well as wisely administered charity.

Of the few cities we saw in Russia, namely, Warsaw, Moscow and St. Petersburg, Moscow was by far the most picturesque, the most interesting and the most progressive. It is now in a state of transition. An ancient Asiatic town, resembling in many respects Constantinople in its buildings and general appearance, is being rapidly transformed into a modern continental city with asphalt pavements, complete sewage system, improved water supply, electric lights, telephones and all the accessories of modern civilization. Once convinced of the necessity or desirability of any radical change, the Russians carry it logically through, sparing neither money, men, nor time to make their end perfect.

While the memory of the Congress itself and the scien-

tific work there done may perhaps fade only to be revived when the Transactions are re-searched for some special topic or discussion, I think none of the eight thousand visitors who visited Moscow in the summer of 1897, will ever forget the city as it then appeared, the people and their sturdy national customs, their open-hearted hospitality and their impossible language, and hope for the time to come when the members of the International Medical Congress can again become the guests of the Russian people.

Dr. W. T. Browne of Norwich then read a very interesting paper on Therapeutic Effects of Electricity of High Tension.

The hour of five having arrived, the meeting adjourned to the Medical College, where, according to the program of the Business Committee, Dr. M. C. White illustrated an electric lantern of his own device and, assisted by Doctors Ferris and Swain, showed some very clear and beautiful micro-photographs upon the screen. This closed the business and literary exercises of the day.

In the evening Dr. Thomas H. Russell, assisted by Mrs. Russell and other ladies, delightfully entertained the members of the Society from eight to eleven, at his residence, 137 and 139 Elm street.

THURSDAY, MAY 26.

The meeting was called to order by the President at 10 A. M.

The first paper read was the Dissertation by Dr. F. L. Loomis, who took for his subject, Favorite Therapeutics.

After the short discussion which followed, the President announced that it was now time to receive the delegates from other Societies:

Gentlemen.—We give you a hearty greeting. We are something like the ancient dame who lived near the field of Waterloo. At the time of the battle she only

faintly heard the cannonading and when one of the loudest bursts occurred, mistaking the noise for a rapping at her door, she called out, "Come in." Now while we are not deaf to the calls which are made about us and need not make so much noise as did Wellington at Waterloo, or Dewey at Manila Bay, we do say, "Come in."

None of the other delegates being present, Dr. Gouley of New York was the first one to respond. He said: One of the delegates from the New York State Association will not boom as loud as did Wellington, but he bears the greeting of that Society and extends to you all a cordial greeting to their meeting in October next. Plans are already made for a fair amount of scientific work. The Society meets at No. 64 Madison Avenue, New York. All will be welcome, whether as delegates or individual attendants.

Dr. Wiggin, from the same Society, said:

It gives me a great deal of pleasure to bring greetings to the Society of which I was formerly a member. I hope to see many of you at our meeting and hope that there may also be papers from some members of this Society. We shall make efforts to do so. Our Association, in affiliation with the County Association, is making an effort to get a special train for Denver. Hope that many here will go. There will be lower rates than by any other train. Any desiring information may communicate with him for any details desired.

Dr. S. C. Maxson of Utica, N. Y., was present, and was called upon. He said it gave him pleasure to represent the Medical Society of the State of New York. He brings cordial greetings from it. He is under personal obligations for courtesy. The last session of his Society was largely attended. There were numerous papers. One important part was that of the Committee on Legislation. He never knew a time when there were so many non-professional organizations that wanted recognition by

law. In each county there should be a Committee on Legislation to bring their influence to bear. Any member of this Society coming to the meeting in Albany, in February next, will receive a hearty reception.

Dr. Foote read the report of the Committee on Matters of Professional Interest in the State. Discussion on it was postponed until the afternoon session, inasmuch as the time had arrived for the President's Address.

The President-elect, Dr. Henry Putnam Stearns, was then introduced and inducted into office. He acknowledged the honor and returned his thanks for it.

Dr. Goodwin then read his Address, The Practical Value of Bacteriology to the Medical Profession. At the close of the reading there was hearty applause and Dr. Ingalls moved a vote of thanks to Dr. Goodwin for his excellent paper.

The meeting then adjourned to 1:45 P. M.

THE AFTERNOON SESSION

was called to order promptly.

The first paper was the Report on the Progress of Medicine, by Dr. Tiffany of Stamford.

The second paper was by Dr. F. H. Wiggin on Abuses of Medical Charity and how they can be remedied. It was discussed by Doctors Wilson, Swasey and others. Dr. F. W. Wright then presented a paper entitled Intubation of the Larynx—a Report of Fifty Cases, which was discussed by several members and a number of questions were asked, and answered by Dr. Wright.

Dr. Stearns' paper was a narrative of an exceedingly interesting case of double homicide, in which the writer traced out the mental processes which led to the tragic result.

Dr. M. M. Johnson then read a paper on Ventral Hernia following Appendicitis, which was commented upon by Dr. Carmalt.

Dr. S. G. Hubbard presented the subject of Medical Journals as a Means of Self-Education. It was delivered both from manuscript and as an extemporaneous discourse.

Dr. Segur's paper, Some Remediable Causes of Sterility, was an admirable presentation of the subject and received high praise from Doctor Beckwith, who thought the Society owed Dr. Segur a vote of thanks for the quiet and scholarly paper. He thought he had never heard the subject presented better.

Dr. Garlick said he felt abundantly paid for passing over his paper by what he had gained. Our own experience corroborates what has been said. Patience without operative measures will accomplish more than we believe. Operative procedures are more often urged upon us than we urge it upon our patients.

Dr. Donaldson, being called upon, read a paper, Physician, Heal Thyself, which was upon the subject of medical ethics. It was warmly applauded.

The remaining papers were read by title and all were referred to the Committee of Publication:

Eliminative Treatment of Chronic Rheumatism, J. E. Loveland, Middletown.

Mushrooms and Mushroom Poisoning, G. N. Lawson, Middle Haddam.

A Case of Pachymeningitis, Interna Hemorrhagica, A. B. Coleburn, Middletown.

A case of Intussusception, M. Storrs, Hartford.

The Widal Reaction for Typhoid Fever, With Report of Cases, P. D. Bunce, Hartford.

Angioneurotic Edema of the Tongue, F. K. Hallock, Cromwell.

Medical Charity, its Use and its Abuse, F. H. Wiggin, New Haven.

Ptomaines, T. L. Axtelle, Waterbury.

The Use of Diphtheria Antitoxin, O. C. Smith, Hartford.

Intubation of the Larynx—a Report of Fifty Cases, F. W. Wright, New Haven.

A Case of Double Homicide, H. P. Stearns, Hartford.

The Use of Medical Journals as a Means of Self-Education, S. G. Hubbard, New Haven.

The Application of Ophthalmic Science in the Hygiene of Schools, C. S. Rodman, Waterbury.

Puerperal Septicemia; its Etiology, S. D. Gilbert, New Haven.

Medical, Puerperal Eclampsia, Rosavelle G. Philip, Stamford.

Surgical; its Pathology, M. L. Cooley, New Haven.

Some Remediable Causes of Sterility, G. C. Segur, Hartford.

Acoumeters and Their Diagnostic Value in Ear Diseases, W. C. Wurtemberg, New Haven.

The Relation of Muscular Co-ordination to Certain Kinds of Trauma, E. H. Arnold, New Haven.

Secondary Dyspepsias, J. H. Rose, Hartford.

Diseases of the Tonsils, C. E. Munger, Waterbury; A. N. Alling, New Haven.

Epidemic Roseola, Rötheln, J. K. Mason, Hartford.

It was voted that seven hundred and fifty copies of the Proceedings be printed and that a tax of two dollars per capita be laid upon the members of the Society.

The banquet at the New Haven House in the evening was an exceedingly enjoyable affair. The responses to the toasts were unusually bright and entertaining. They were:

The Rank and File, President R. S. Goodwin.

The Clergyman and the Doctor, Rev. Dr. Edwin S. Lines.

The Professor at the Dinner Table, Prof. Lafayette B. Mendel.

The Lawyer and the Experts, Hon. Jas. P. Pigott.

Other Kinds of Doctors, Dr. E. H. Jenkins.

PRESIDENT'S ADDRESS.

PRESIDENT'S ADDRESS.

THE PRACTICAL VALUE OF BACTERIOLOGY IN MEDICINE.

Gentlemen.

It is doubtless within the memory of many whom I have the honor to address, that the great science of Bacteriology began to cast its first faint gleams of light upon the medical world; and some can remember how that in that early dawn of its existence, the medical profession looked upon it with its proverbial attitude towards new things, of conservatism and distrust.

Many ridiculed and scoffed at it, while others seriously doubted whether it could ever be of any practical use to the world.

To-day, we know of no advance in medical science which has led to so many practical results, or which has thrown so much light on the vital processes of the human body, both in health and in disease, as the science of Bacteriology. The illustrious annals of medicine contain no greater triumphs than those which have already been made by this progressive young science, still only

"An infant sleeping on the knees of Jove."

Previous to its advent, the scientists had so prepared the way by extraordinary activity in experimental research, aided by greatly improved microscopic technique, that they could not have missed the leading facts much longer.

These facts are now so well known and common-place, that it seems quite probable to us, that if neither a Lister nor a Pasteur had arisen to explain them, the principles of prophylaxis and antisepsis must surely have occurred to some one within a few years.

The case has been similar in regard to other great medical discoveries. Who can believe, for example, that without Harvey, the circulation of the blood would never have been discovered; or that without Claude Bernard, no one would have suspected the glycogenic function of the liver?

So we cannot fairly assert that the causal relationship of parasitism to disease would have remained unknown without the great Pasteur or his tireless disciple, Koch. If these illustrious scientists had not taken the first step, other investigators would doubtless have found the way to stain and cultivate bacteria on solid media, to perfect points of technique, to analyze the phenomena of infection and to explain the now familiar microbic theory of disease.

We should not, however, be ungrateful to them for what they have done. We should honor them for their genius and industry. For they were superior to others in this; that they were quick to detect and to utilize for the benefit of the world the great truths which could not much longer have remained hidden from the masses.

But it may be asked, "What has all this experimental science to do with practical medicine? Does Bacteriology really, after all, help us to detect, to prevent or to cure disease?"

This question is certainly both pertinent and important, and to its brief discussion I now invite your attention.

BACTERIOLOGY HAS REVOLUTIONIZED PATHOLOGY.

In the first place, I desire to point out the great change —I might say revolution—that has actually taken place in pathology as a result of bacteriologic work. And when we consider how that upon a true pathology rests the entire fabric of rational medicine; how that without it, thereapeutics is, in the language of the Apocrypha, "as

a hill of sand to the feet of the aged," a toilsome and futile groping in the dark—we can realize how great is the practical value and importance of such a change.

It is quite evident that any discovery which throws a new light upon the causes or nature of the morbid processes that take place in the vital organs, during a disease, must help us immensely in the prevention and cure of that disease.

This idea of the microbe as a disease-producing agent is such a discovery. It has taken Pathology down from its high throne where it had been worshipped from afar, and transformed it into a practical every-day working force in medicine.

Only two or three decades ago, as those of us can remember who were medical students in the days of the elder Flint and Alonzo Clark, the diseased organ was exhibited to the medical class with a learned and painstaking description of its gross appearances.

But its altered structure, as revealed by the microscope, was hardly ever referred to, and nothing at all was said about the CAUSES of the gross morbid changes that were to be seen. In those days, we saw much of the carefully demonstrated "patches of Peyer, ulcerated by typhoid fever"; but we learned very little about the true origin or causation of that disease. And so also the tuberculous lung with its purulent cavities and infiltrated tissues, was an unexplained enigma to us, so far as the etiology of its diseased condition was concerned.

In short, we must admit that pathology, at that time, was but little more than what it had been scornfully styled more than a century before—"a profitless pottering with morbid specimens."

But see what a wonderful change Bacteriology has wrought!

To-day, the pathologist studies the diseased changes none the less, but he goes farther and demonstrates the exact way in which they occurred. He investigates the nature of the morbific agent which was their cause. The etiologic factor is made more prominent, and as a result we know better what to do and why we do it when we come to treat the disease. Many remarkable recorded results in treatment are the direct outcome of our improved pathology. In nearly all the contagious diseases the parasite which is the casual agent has been found and its life history has been studied and described. Pathologists now tell us with precision what happens when these various micro-organisms or their toxins are introduced into the body. Metchnikoff made a great advance in experimental pathology by his remarkable researches in phagocytosis. His theory explains how that nature alone, unaided by art, can successfully resist the action of microbes, and suggests to the therapeutist many practical hints as to what to do and what to avoid doing.

So great has been the progress of bacteriologic work, that all of our text-books have had to be rewritten.

The old pathology of fifteen, ten or even five years ago, is obsolete. It had to be compressed more and more by writers of new medical works. Finally it had to be suppressed altogether—blotted out as spurious. Never was there such a sudden and wonderful change before! The old pathology has vanished, but the new has come to stay—buttressed by the certain proofs of experimental science.

A GREATER REVOLUTION IN SURGERY THAN IN MEDICINE.

In surgery we have seen even a greater revolution than in medicine, and the enormous direct, practical benefit which bacteriology has conferred on mankind in this department alone, is beyond our power to compute.

It is worth while, at this point to recount some of the surprising figures which show the brilliant successes of Listerian Surgery.

Lister himself states that by the practice of antisepsis he reduced the mortality in his own large surgical practice from forty-five to less than one per cent.

Volkmann declares that by the same means, he reduced the mortality in cases of compound fracture from forty to one and one-half per cent. Brignot reports the mortality from major surgical operations in the French hospitals reduced by antiseptic measures from fifty-two to eleven per cent.

Prof. Dennis of New York, has reported a series of five hundred and sixteen cases of compound fracture, treated with antiseptic precautions, without a single death. The usual mortality, without antisepsis, had been between forty and fifty per cent.

In the field of abdominal surgery, the marvelous feats of the modern surgeon seem like the work of magic, and the touch of his knife like the touch of a magician's wand—so great are the practical results of bacterial science in the salvage of human life.

Since this science has taught us that it is a crime for the obstetrician or nurse to approach the parturient woman in the hour of her peril, with unsterilized hands or instruments, puerperal septicemia has vanished from the lying-in chamber like a dread phantom.

A quarter of a century ago, it was estimated that about a third of all the patients who were delivered in the maternity hospitals of Paris died from septic infection. It is quite different now. In the New York maternity hospital, out of a thousand recent deliveries, with antiseptic precautions, only one death occurred from septicemia.

PRACTICAL RESULTS IN PREVENTIVE MEDICINE.

The exact knowledge which we now possess of the

relations of micro-organisms to disease has laid the foundations for the magnificent progress that has been made in preventive medicine.

The brilliant results already attained by the aid of sound experimental investigation are the pride and glory of our profession, which has always been foremost in its unselfish efforts to save human life.

A brief mention of some of the most notable advances made in this philanthropic field may not be inopportune at the present time.

Pasteur's method of preventing hydrophòbia, which has been practiced by his pupils in some of our large cities, has met with unquestionable success. Many lives have been saved, though the pathogenic germ is still an unknown quantity.

The preventive inoculations against cholera of Ferran in Spain and of Haffkine in India have been proven by official statistics to have given unmistakable immunity to this disease. But it is not to be expected that these culture inoculations can ever largely supplant those important sanitary precautions, which experience and a knowledge of the nature of the cholera spirillum has taught. Such precautions include the disinfection of the hands and clothing, the avoidance of infected food, the use of boiled drinking-water, the isolation of the sick and the disinfection of their excreta.

With these and other similar measures of safety at our command, we are no longer horrified when this dread pestilence approaches our shores; but we rest in calm defiance of that grim monster who in other times less favored than ours with the light of science, stayed not his murderous hand, neither by day nor in the silent watches of the night.

There is a class of communicable diseases whose symptoms, course and mode of propagation leave no room to doubt that their cause is an absolutely specific germ

not yet discovered. To this class belong small-pox, scarlet fever, measles, whooping cough and other kindred affections. Bacteriology, though unable yet to identify the causal germ, has taught us many invaluable lessons concerning the etiology, prophylaxis and treatment of such preventible diseases.

Gradually, however, this little group of diseases is growing less by reason of the discovery of some new germ—long suspected, and found at last, after years of elusive search.

The latest addition to our knowledge in this direction, has been made by Sanarelli, who has probably discovered the yellow fever germ, which he calls the icteroid bacillus. Dr. Sternberg thinks that this germ is identical with the bacillus x, which he found and described a few years ago, as occurring in about fifty-six per cent. of yellow fever autopsies. But Sanarelli's investigations have been more extensive and seem likely to lead to more practical results. They are of special interest to us just now on account of the recent outbreak of yellow fever in the South.

Our government has been asked by a committee from the American Public Health Association to establish an experimental bacteriological laboratory at Havana to prosecute further inquiries into the causation and nature of this formidable exotic disease.

If this should be done—as it seems now, more than ever, likely to be—may it not be hoped that some means may be devised to banish this disease (which is not indigenous to the United States) from our shores, which it has disastrously visited during every year, but nine, since the beginning of the century?

The discovery of the typhoid bacillus by Eberth, and the exact knowledge that we have acquired of its biologic characteristics have led to the notable restriction of typhoid fever. This may be shown by many

accurate statistical reports—especially by recent ones of our own state.

In the adoption of measures for the prevention of this disease it has been found that applied knowledge of the pathogenic germ has been the only true basis of success.

Such measures have included the biological examination of water supplies; the use of scientifically constructed filters for drinking water—such as the Pasteur-Chamberland; the improved plans of plumbing, and methods of sewage disposal; the disinfection of the excreta of the sick by such germicides as have been proven by elaborate experiments to be thoroughly efficient; the inspection of milk and various other familiar expedients which, if faithfully carried out by every one concerned, would certainly sweep away this terrible disease which has long been a perpetual menace to the health and happiness of the civilized world. Sir Edwin Arnold in a recent address at St. Thomas' Hospital, London, said: "A great authority has declared that a day will come, when in London, Berlin or Paris, man will not die of typhoid fever, any more than he dies in those cities now of the venom of snakes or of the tooth of wolves."

Consumption is another preventable disease concerning whose restriction the medical profession have expected much from bacteriological science.

Unfortunately our expectations have not yet been fully realized. The danger, as we all know, arises from two principal sources; namely, from the dust of the dried sputa of consumptives, and from using the flesh and milk of tuberculous animals as food. To educate the masses in the recognition and avoidance of these dangers, is a slow process, and one not productive of immediate results. Progress, however, is being made.

The precautions enforced by the inspectors detailed for this work in the tenement-house districts of New

York, consist of the use of rags to receive the sputa, which are to be burned, the use of cups containing a disinfecting solution, the separation of the patient's clothing from that of others, and the disinfection or renovation of houses that have become foci of the disease.

Dr. Hermann M. Biggs, director of the Bacteriological Laboratories of the Health Department of New York, says: "Most beneficial results have been already attained from these measures. Not only has there been a very material decline in the number of deaths, but there has been a most gratifying increase of knowledge and intelligence as to the nature of this disease among the poorest class of the population."

The discovery by the immortal Koch of the tubercle bacillus, and the subsequent investigations concerning the contagious nature of consumption and the best means of avoiding it, will, however, fail of large practical results unless the people take warning and through their law-makers apply this newly acquired knowledge to a useful account. I believe that wise public health legislation should be the first step in the education of the masses as to their duty in this matter. I would by law compel the heads of all public institutions, such as hospitals, insane retreats, temporary homes, orphan asylums, almshouses, jails and penitentiaries to isolate their tuberculous patients. I would prevent the consumptive from scattering broadcast his infective sputa, and I would prohibit the sale of meat and milk from tuberculous animals.

I am aware from personal experience, that such compulsory health legislation is not easily obtainable. Out of the growing mass of statutory law, arising out of the advancement of science and its novel and complicated problems, and necessitated by the development of new social relations, very little can be found that has been

of any value in the prevention of disease. The chief difficulty is that we have no class of skilled legislators —men, who by special study, experience, training and legal insight, are qualified to construct proper sanitary laws based on scientific principles, for the protection of the health of the people. When such men shall be put forward by the united efforts of the medical profession, to take the place in our legislative health committees of our political agriculturists, unscrupulous pettifoggers and decayed rural practitioners, who now formulate our health laws—then, and not till then, will the triumph of preventive medicine become complete.

AVAILABILITY OF BACTERIOLOGY IN DIAGNOSIS.

The ability to establish an early and definite diagnosis of contagious disease is of too evident practical importance to the physician to require any extended remark.

The skillful diagnostician of former times often found it impossible to make such a prompt and positive diagnosis as the interests of his patients and those who might be exposed to infection required. In tuberculosis, diphtheria, typhoid and relapsing fever, malaria and other parasitic diseases, the early differential diagnosis from other and milder affections was frequently found to be difficult or impossible.

We have now, however, within our reach the means of making the diagnosis of these diseases certain. The scientific physician by the aid of his microscope and staining methods, can establish at once the presence or absence of the causal micro-organism and thus set all doubt at rest.

The importance of this method to the public has been recognized by many municipal boards of health, who have equipped bacteriological laboratories in which diagnostic tests may be made for busy practitioners who are liable to encounter obscure cases of infectious diseases.

But the microscopic detection of the pathogenic germ is not the only aid to diagnosis that bacteriologic science has afforded. In those definite and well-marked changes, called "reactions," set up in the tissues by the subcutaneous injection of the toxic products of certain disease germs, we have another diagnostic method of world-wide fame. I refer to the use of tuberculin and mallein, now well known as tests for tuberculosis and glanders in animals—diseases that may be transmitted to man. The value of these and other similar infection tests is generally recognized, and their use is extensively gaining ground both in this country and in Europe.

Still another improved method of diagnosis has been made available to the clinician by the recent researches of biologists. It is known as the serum diagnosis of typhoid fever; and as it illustrates the practical nature of all biologic work, it merits a passing notice here. The discovery of this serum-test seems to have been the outcome of studies in immunity made by many observers, among whom we may mention the names of Metchnikoff, Issaeff, Pfeiffer, Bordet, Durham and Gruber. The last step in this series of observations was made by Widal of Paris, who read a paper June 26th, 1896, before the Société Médicale des Hopitaux announcing his discovery. It consists of adding a few drops of the patient's blood to a fresh culture of typhoid bacilli with a dilution of one to ten. If the bacilli begin to lose their motility and to clump together in various agglutinative masses, the diagnosis of typhoid fever is assured. Dr. Wyatt Johnson, of Canada has shown that this test can be made with dried blood and has thus opened the way for its introduction into municipal laboratories as a practical, working test.

IMPORTANT PRACTICAL RESULTS IN THERAPEUTICS.

But it is not alone in pathology, in preventive medi-

cine, or in diagnosis, that the chief utility of bacteriology may be found. It has also been greatly utilized in therapeutics. Although it is of much interest to our profession to know the cause and nature of a disease, yet if we cannot cure it, our art is vain and our science is only a reproach unto us.

Following the lead of surgery our therapeutists, naturally, at first, attempted to prevent the spread of disease germs throughout the fluids and tissues of the body by destroying them at the foci of initial infection. This could be done perhaps in such diseases as erysipelas and diphtheria, but it was a procedure of not very wide application, and of many manifest limitations. Attempts have also been made by means of germicidal and other remedies, to place the entire organism of the infected individual in a condition so far as possible unfavorable to the multiplication and growth of the virulent germs. But towards such plans of treatment, named generally after their inventors, the attitude of the profession in general has been one of quiet indifference rather than of enthusiastic advocacy.

Fortunately, however, far more remarkable and brilliant practical results in therapeutics have been obtained by another and more ingenious method which is the immediate outcome of bacteriological research. I refer to serum therapeutics, or the treatment by antitoxins, which have been found to be powerful curative agents in diphtheria and in tetanus. It is probable that in the future, this treatment will be extended to other diseases, and that it will be a long time before we shall hear the last word about serum therapy.

It has been ascertained, by experimental inquiry, that the animal organism possesses the marvelous power of neutralizing the poisons or toxins, secreted by microbes within the body, by the secretion of counter-poisons or antitoxins. Serum therapeutics makes this principle

available in the cure of disease. It consists in injecting into the patient's body the antitoxins from the blood of an immune animal to combat the toxins of the parasite in the patient's blood.

This treatment has been used with phenomenal success in diphtheria. I will not abuse your patience by presenting to you in detail the incontestible proofs of its efficacy in this disease. It will suffice if I quote to you the words of Prof. Welch of Baltimore, a distinguished and acute observer whom we all delight to honor and to claim as a native of our own State. Dr. Welch in a recent paper says: "The discovery of the healing serum is entirely the result of laboratory work. It is an outcome of the studies of immunity. In no sense was the discovery an accidental one. Every step leading to it can be traced, and every step was taken with a definite purpose and to solve a definite problem." After presenting statistics which show the greatly decreased mortality of diphtheria due to this treatment, the Doctor concludes by saying: "My study of the results of the treatment of over seven thousand cases of diphtheria by antitoxin, demonstrates beyond all reasonable doubt that anti-diphtheretic serum is a specific, curative agent for diphtheria, surpassing in its efficacy all other known methods of treatment for this disease. It is the duty of the physician to use it."

Other statements of equal authoritative value, which to be brief I must omit, establish on a firm basis the immense practical value of antitoxin. And yet it must be confessed that there are a few members of our profession who refuse to try it, or to acknowledge its efficacy. Others, under the pressure of public opinion, use the antitoxic serum in a half-hearted way, in small unconcentrated doses, or late in the disease after all other measures have failed.

All this must certainly bring the new treatment into

needless disrepute. It can be no rash inference for me to make, that a man with a mind hermetically sealed against proven truth, and in a state of invincible ignorance in such a matter, whatever else he may be, can never be a great physician. Who would suppose that such an actually successful remedy would ever need to be strenuously advocated—that the medical profession, or any part of it, would have to be urged into the habit of using it? So fully has its practical therapeutic value been shown, that its use stands no longer on the basis of doubtful expediency, but rather on that of imperative duty.

Finally, gentlemen, I need not ask you to put yourselves abreast of the latest progress in bacteriology—the science which has done so much for practical medicine; for I feel sure that you are there already. I need not urge you to utilize to the utmost, every possible aid that this science affords in the brave fight which you are waging against the myriad invisible foes of human life; for that, surely, is your highest hope and strongest desire.

To you, the toil-won conquests of your brothers, the bacteriologists, working in constant, indissoluble communion—devising, searching, discovering—are not all as if they had not been. It is for them to originate, to revolutionize, to experiment, to suggest. It is for you to consider, to judge, to adapt, to apply—both striving together for the same end, the highest welfare of a common humanity.

Like the brave followers of the immortal Ulysses as described by Tennyson, may we all forever prove to be

> "One equal temper of heroic hearts,
> Made weak by time and fate; but strong in will,
> To strive, to seek, to find and not to yield."

DISSERTATION.

FAVORITE THERAPEUTICS.

FAVORITE THERAPEUTICS.

F. N. LOOMIS, M.D.,

DERBY.

I feel that I owe the Society an apology. I have been elected to the position of Dissertator, and have been given a year to prepare a paper for your edification. The Society has a right to expect, under such circumstances, a paper founded on original research or one in which, by a course of reading, some subject is brought down to date. If I had the ability to prepare such a paper, I have not had the time to do so.

In these stirring times when desertion is not to be tolerated in any line, I have decided to invite your attention for a few moments to the consideration of Favorite Therapeutics. By favorite therapeutics I mean those medical devices which have given me personally the greatest satisfaction, and I am the more inclined to bring to your notice two or three of my favorite schemes, because the very ones I get the most satisfaction from are used but little by my fellow practitioners. One of my dissatisfied patients recently consulted an up-to-date New Haven physician, and returned sure she had now found a man who would cure her. I asked her why, and she said that Dr. B. made a specialty of her trouble. When I asked her what Dr. B.'s specialty was, she said the doctor told her that he made a specialty of diseases of the mucous membrane. My first medical hobby is metallic electrolysis in diseased conditions of the mucous membrane, and this is almost as wide in application as my friend B.'s specialty.

Possibly it may be necessary to explain what is meant by metallic electrolysis. Metallic electrolysis is applied by connecting an oxidizable metal, such as copper, silver or zinc, to the pole of a battery and having the negative the indifferent pole. For instance, if you take a piece of beef-steak and connect the negative pole of your battery to it and then plunge into it a copper needle connected with the positive pole and let a current run for a moment or two, you will see a greenish color spread about the copper needle. In other words, the oxidized metal is being, so to speak, plated into the steak. The same thing is true in the living body. If you hold the negative pole of a battery in your hand and apply a copper electrode to an enlarged tonsil, you will diffuse the oxide of copper into the tonsil. Or, if you use a silver electrode, you will diffuse the oxide of silver into the tonsil. But, you say, why not apply with a brush the nitrate of silver to the tonsil and save time? Because with the nitrate of silver solution you only get the solution on to the surface and its effect is transient. By metallic electrolysis you get the metal into the tonsil itself, and its effect is kept up for hours or days, as you see fit. That this is so can be illustrated practically. When you apply the nitrate of silver, one can get a styptic taste from the application for a few moments, possibly an hour or two. Make such an application by metallic electrolysis, and you can taste the metal for two days. I use this method in catarrhal and ulcerated conditions of the throat and nose and also in ulcerated conditions of the cervix uteri. It is especially efficient, when properly applied, in cervical and corporeal endometris. It is almost impossible to make applications, astringent or caustic, to the corporeal endometrium, for almost all such applications cause contraction of tissue in the cervix to such an extent that it is hard to apply just the amount you want in just the place you want it.

With this method you have simply to introduce a silver, copper or zinc sound, according to the indications in the case and, by the strength of your current and the length of application, you can regulate to a nicety the effect you desire. It is not my purpose to go into this treatment in detail, but just to indicate the possibility of a treatment which in my hands never fails to give to me and to my patients the greatest satisfaction. One class of cases where one can see just how it acts and see the progress of the case towards recovery, is a case of trachoma, or granular lids. I have used it in three such cases in the past two years, cases that have been in the hands of competent oculists and had not been cured, either because their patience or pocket-book did not hold out. The improvement was so great from two or three treatments that I had no trouble in holding my case until complete recovery—there not having been as yet any relapse.

The objections to the treatment are that it requires a somewhat expensive apparatus and the treatment takes time, from twenty to thirty minutes to each case treated. I would like to go more into detail concerning this treatment but, remembering how uninterested most physicians are in anything electrical, I hasten on to a subject which every general practitioner has often had brought to his notice.

The treatment of sprained ankle has in my hands until the past three years been as unsatisfactory as the prognosis in such cases. I never could tell from an examination whether I had a simple case to deal with, one that would recover in a week or ten days, or one that would take months. Some cases that had every sign of being serious, great pain, a large amount of swelling and excessive ecchymosis and very tender to the touch, when I had told the patient it would take a long time to effect a cure, have surprised me by rapid recovery. On the

other hand, where there did not seem to be much trouble, as indicated by physical symptoms, such cases were sometimes months in recovery. I have used all the old treatments; silicate of soda splints, fomentations, massage, hot and cold water, passive motion, etc., etc. All these methods were a success in some cases, none of them in others. Some of my cases wandered into the hands of a Sweet, to be told that there was a fracture or a small bone out. Three years ago I read a piece by Dr. V. P. Gibney, in the New York Medical Journal. Since then I have had no trouble. I presume that some of the members of the Society are using Gibney's method. I am sure that many surgeons are not, for I have taken occasion during the past few weeks to ask two or three consulting surgeons how they treated sprained ankle and they have all suggested the old line of treatment. The treatment consists in strapping the ankle, foot and leg with a sort of basket strapping with Mead's plaster. Gibney describes it as follows:

"After making the examination, employ massage for five or ten minutes with the foot well elevated. Next apply strips of rubber plaster about an inch in width and from twelve to eighteen inches in length, over the part sprained, beginning back of the injury. Aim to leave the part of the foot not affected as well uncovered as possible, but reinforce well as the strips are applied under the malleolus or malleoli. The first strip for a sprain of the external malleolus is applied, beginning just above the ankle on the unaffected side of the foot, and ending on the affected side about half way up to the calf. This strip is usually alongside the tendo Achillis and makes firm support under the heel. The second strip starts on the inner side of the unaffected part of the foot, near the ball of the toe, comes around over the back of the heel, and ends about the base of the little toe. It crosses the first one just above the border of the heel.

The third strip overlaps the first half way, the fourth the second, and so on until the part sprained is fully covered by this criss-cross strapping. A cheese-cloth bandage is applied, more with the idea of securing close adhesion of the plaster, and is removed within twenty-four hours. As soon as the dressing is completed the stocking and boot should be applied. The patient is now ready to begin walking, and this should be insisted upon in the presence of the surgeon. Direct him, for instance, to walk about the room eight or nine times. At first strong objections are offered, but after two or three turns it is asserted that walking becomes more easy, and by the time the task is completed there will be very little lameness or disability. While it is undesirable to insist on too much walking for the next few days, it is essential that the patient should walk as much as it is necessary for him to walk—that is, attend to his duties that require a moderate amount of walking. At the end of a week it is well to remove the strips and reapply in the same manner as above. Two or three such dressings suffice to complete the cure."

An article in the New York Medical Journal, February 15, 1895, gives a more complete account of the way to apply the dressing. I have used it in every case of sprain I have had during the last three years. I must have used it in from thirty to forty cases. Every case but two have walked from the time I put the strapping on; one of these walked in three days, and the other at the end of a week. I have used it in fresh cases and cases that have been under other treatment for from two to three weeks. Within a month a girl came into my office from Waterbury on crutches. I put on the plaster and she hobbled out to her carriage with her crutches under her arm. In a week, when she returned to have her ankle strapped for the second time, she had nearly lost her limp. This method will certainly revo-

lutionize the treatment of sprained ankle; my belief being that it will cure every case in from one to three weeks, and that too without the patient losing a day from his business. The method is also applicable, though not in the same degree, to other joints.

My last medical hobby is the use of phenacetin in typhoid fever. When I told a physician in New Haven with a large consulting practice about this treatment, he remarked that if the patient could survive the treatment, he ought to survive the disease. My treatment is to give an adult with typhoid fever, as soon as the diagnosis is made, from three to eight grains of phenacetin every three hours, night and day, as long as the patient has any fever. I also give one-fortieth of a grain of strychnine every four hours. I am well aware that we have all been taught that phenacetin is a powerful heart depressant, and I have seen cases where it has been given to reduce the temperature, where I am sure that it did make the pulse unsteady, rapid and weak. My experience is, and all have the same experience I am sure, that when phenacetin is given in full doses to a patient with a temperature of 104° or 105°, it reduces the temperature two or three degrees. The patient is thrown into a profuse perspiration, sometimes has a blue look, the pulse is rapid, possibly small and irregular. The patient feels better, the nervous system more quiet; but it seems to prostrate the patient to a point where we often feel that the loss of strength more than compensates for the loss of temperature and the quiet nervous system. But is it the phenacetin per se that gives the system the great shock, or is it the fact that to lower temperature artificially two or three degrees in an hour causes the shock? My belief is that it is the latter. I do not allow the temperature to go up again. In three hours I give a second dose. Possibly there is some reaction from this, and indeed there may be from each dose

for thirty-six hours; but the time soon comes when no such effect appears, when, in fact, your phenacetine does not seem to affect the temperature at all. If your case has had a temperature from 103° in the morning to 104½° at night, in two or three days it becomes a case with a temperature from 100° in the morning to 101½° at night. During this stage I have never noticed that the phenacetin had the slightest effect on the pulse. If I ever do, possibly I shall stop the drug. I always have the patient waked for the phenacetin, as I do not want the temperature to go up; for it is then that the patient seems to be weakened by phenacetin, when the temperature suddenly goes down. I have used this method four years. I have treated about twenty cases during that time, and have not lost a case. Have my cases been mild? I confess they have seemed mild; for, after two or three days of this treatment, every patient I have treated has seemed very comfortably sick. The fever has, in most cases, run the full four weeks, some longer.

Two years ago I treated a case that, before a diagnosis was made, had developed a temperature of 105°, and was very delirious. Every member of this family, in any sickness that gives continuous fever, becomes delirious. A year before a brother died of typhoid under another physician's care, the cause of death being meningitis developed by high fever. My patient, a girl twenty years old, had a sharp hemorrhage of the bowels at the end of the first week. At this time, the diagnosis being clear, I commenced the phenacetin, and in two or three days I had a patient on my hands comfortably sick. She never developed a bad symptom.

I have yet to see a case that the effect has not been favorable. I have yet to see a case where it has affected the heart injuriously. It has seemed to me that the phenacetin must act not only to reduce the temperature, but also as an intestinal antiseptic; and that possibly

its antiseptic and anti-fermentative powers were the elements that are important factors in its use. Since using the phenacetin so freely in typhoid, I have used it with less fear in any case where high temperature was a marked feature. I learned last fall that such a treatment was being used in the eastern part of the state, in the Norwich Hospital. This treatment is not original with me. Dr. W. H. Conklin of Ansonia suggested it to me as much as eight or nine years ago. He had used it in a large number of cases for several years with few deaths. It was several years before I could bring myself to use it, so deep-rooted was my fear of the action of phenacetine on the heart. One day he took me to see two cases that had taken eight grains of phenacetin every three hours for four weeks. They each had a good pulse for patients that had had typhoid fever for four weeks. Still I was not convinced, just as you probably are not, that the treatment is safe. It was a long time before I gave it a personal trial, and I did not do so until I had a case on my hands that I was certainly going to lose by any treatment that I had ever used.

The patient was a saloon keeper, a hard drinker. He had been sick ten days, temperature up to 104° at night, nervous system in a bad shape, what little sleep he had been able to get was disturbed. In spite of vigorous stimulatives, because of his previous habits, he was commencing to have hallucinations, pulse was fast but not yet weak. Thinking that in a few days, at the rate he was going down, I should have a case of delirium tremens on my hands, as well as a case of typhoid fever, and that I was going to lose my patient, I commenced the phenacetin. In forty-eight hours he was much improved, and from that time on I had no trouble with the case.

After continuing with the phenacetin treatment for four

or five days, when it has been necessary to use as much as eight grains every three hours to control the case, one can sometimes reduce the size of the dose to four, five or six grains every three hours. Of course, while using this method, one ought to use the same care in the diet as is used in the expectant plan of treatment, and troublesome symptoms, if they arise, should be met by proper drugs. If you decide to try this treatment do not commence it in a case that has been sick for three weeks or more, and promise me if you do commence it, you will continue it for at least seventy-two hours. I expect to make but very few converts to this treatment, for I remember how slow I was to adopt it. Keep it in mind, and some day you may have a case that starts in so savagely that your judgment tells you that the patient cannot possibly last with such a fever and with such symptoms, and when the methods you have used seem to be doing no good; then, remember the phenacetin and give it a trial.

Dr. Loomis' paper excited some inquiry and some comment.

Dr. A. E. Barber wanted to know if Dr. Loomis had a doubtful case, one which had been diagnosed as typhoid remittent, the precise character of which was not determined, would he give phenacetin? How would he give it?

Dr. Loomis.—As a dry powder on the tongue. If not sure of his diagnosis, he would not give it, but would wait. He gives phenacetin to children. It quiets their nervous system.

REPORT

OF THE

COMMITTEE ON MATTERS

OF

PROFESSIONAL INTEREST

IN THE STATE.

I. MALARIA IN CHILDREN.

II. A CERTIFIED MILK FARM.

III. INTERESTING CASES IN PRACTICE.

REPORT OF THE COMMITTEE

ON MATTERS OF PROFESSIONAL INTEREST IN THE STATE.

In this study of malaria the Committee assumes: First, that such a thing as malaria exists in infants and children, a statement doubted by at least one member of our Society; second, that a diagnosis of malaria in infancy and childhood can be made by the general practitioner without the aid of the microscope in most cases. There are certain difficulties in making use of the blood-examination by the general practitioner, which are not sufficiently well recognized. The plasmodium often exists in very small numbers in typical cases of malaria, and repeated examinations must be made before it is detected. These require that quinine should be withheld several days for purposes of diagnosis, a thing often difficult to do in private cases.

In the estivo-autumnal type of fever the organisms in some cases can only be found in the splenic blood, and splenic puncture is not always warranted. If, after a consideration of these facts, we hold that a study of malaria without blood-examination is not worthy of consideration, this report will not interest us, but if, on the other hand, we think that the general practitioner is qualified in most cases to make a diagnosis of malaria without blood-examination, the report may be of interest.

All the questions asked by the Committee were suggested by looking over the more recent literature on malaria. The Committee recognize a coefficient of error in such an investigation, but have sufficient confidence in the acumen and wisdom of the general practitioner to believe that the sum total of answers in spite of individ-

nal errors may throw a little light on certain clinical aspects of malaria.

This report has much less value than it might have, because so few respond to the questions asked and because so few of those who respond keep records of their cases.

Malaria in infancy is a comparatively rare disease. Seventy-one reporters state that they see very few cases of malaria in infancy. Several reporters have never seen a case in infancy.

Malaria in childhood, on the other hand, is a common disease. Thirty-five reporters see many cases in childhood.

Twenty-nine reporters regard malaria in childhood as frequent as in adults. Two regard it as almost as common. One answer gives the proportion of cases of malaria in children to that in adults as four to ten; another as two-thirds to three-quarters. One finds malaria more common in children than in adults (possibly because his practice is largely among children); another states that in infants and children under ten years, malaria is not so common as in adults, while over that age the number of cases is almost the same—necessarily the number of cases a physician sees depends on his class of practice, he whose practice is largely among children seeing more than he whose practice is among adults.

This rarity of malaria in infancy cannot be attributed to any natural immunity, but rather to the care given by parents to protect children from all unhygienic surroundings.

By far the three most prominent symptoms noted, of malaria in infants, are periodical form, vomiting and convulsions. In place of the convulsions, stupor and drowsiness are frequently noted. Gastro-intestinal symptoms are very common, such as loss of appetite, constipation

and diarrhea. Eight have noted chills in infants, a symptom which is regarded in infants as very rare. Sweats are noted by seven. One remarks that the sweats are usually moderate and not so marked as in adults. Seven have noted coldness of extremities and in some cases cyanosis and blue finger tips. Restlessness and irritability are frequently noted. Among the less frequently mentioned symptoms are hacking cough, anemia, high-colored urine, thirst, yawning, enlarged and tender liver, dry skin. Only one mentions enlarged spleen. Many think they see periodicity in the symptoms; thus they mention intermittent bowel trouble and an irregular appetite. The fever is usually referred to as periodical. One or two speak of it as more continued and persistent than in adults; another of its being frequently remittent in infants. One speaks of the fever as usually coming on in the morning, while another speaks of it as coming on in the afternoon.

To describe a typical case founded on the best opinion of the Society, we should say that the paroxysm came on with coldness and cyanosis, followed by convulsions, stupor, vomiting and high fever; later a moderate perspiration develops and the infant rapidly convalesces. In the intermission the infant is irritable, fretful and anemic.

Symptoms in older children are somewhat different from those in infants. By two the paroxysms are stated to be typical. The most prominent symptoms are chills, periodical fever, vomiting and sweats. Convulsions are not nearly as common as in infants. Stupor, drowsiness and malaise are quite frequent. Headache is quite frequent. One states that it is frontal; two that it is periodical. Gastro-intestinal symptoms are frequent, such as anorexia, constipation, diarrhea and dyspepsia. Chills occur in a large proportion of cases. The cold stage is stated by two to be more pronounced than in

adults. Fifty-eight simply state that there is fever; four state that it is remittent; one that it is irregular; one that it is continued; one states that it may be either remittent, intermittent or constant.

Other symptoms are urticaria, cough, thirst, jaundice, sallow complexion, aching and soreness throughout the body, enlarged and tender spleen and loss of flesh.

One states that he finds the plasmodium more frequently in children than in either infants or adults.

The rarity of extraordinary symptoms reported by the Society may be regarded as an evidence of its sanity and of its belief that malaria is usually a fairly well-defined disease, with few unusual complications.

The extraordinary cases noted are as follows:

1. Case of a boy six years old who had frequent uncontrollable twitching of the left eye associated with anemia and epistaxis, cured by quinine.

2. Case of a child, chiefly interesting on account of the very high temperature during the paroxysms of fever, the temperature frequently reaching 107° and associated with convulsions.

3. Case of a girl, five years old, who had a regular convergent squint every other day with eyes normal on intervening days.

It is noticeable in these cases that no mention is made regarding enlargement of spleen, periodicity of fever and the presence of the plasmodium in the blood, so that the evidence is not conclusive that the symptoms were caused by malaria.

Vomiting is the most common symptom of those specifically asked for. This is very common, both in infancy and childhood. Convulsions, periodical delirium, and diarrhea are very common also.

Coma and epistaxis are occasionally noted. Only

eight observers have noted hematuria, only two glycosuria.

Of those conditions more properly termed complications, bronchitis is by far the most common. This has been noted by about forty-four observers. Twelve have noted pneumonia as a complication.

It is the opinion of one observer that when bronchitis, pneumonia or diarrhea are present, there is a latent tuberculosis which is the cause of the periodical form, rather than malaria.

Seven cases of asthma due to malaria, some of which are apparently reliable, are reported.

Cases of croup are reported by eleven.

Torticollis resulting from malaria has been observed by thirteen. One reports the case of a boy, five years old, who invariably developed a right-sided torticollis coming on during the stage of fever and then passing off, readily cured by quinine.

Unfortunately it is the exception that when cases are reported any mention is made of the condition of the spleen, the presence of the plasmodium in the blood, and the periodicity of the fever. It therefore must often be regarded as problematical whether the symptoms were due to malaria or not. But the consensus of opinion is so overwhelming as to the frequency of convulsions, delirium, stupor, bronchitis, vomiting and diarrhea in cases of malaria that there can be little question but that these symptoms are fairly common in cases of malaria, though few extended records are given of such cases. Cases of pernicious malaria have been observed by twelve reporters. Six have noted such in infancy. One observer, apparently not recognizing the usual distinction of malaria into benign and pernicious cases, states that all cases of malaria are pernicious; that is, they pursue an unfavorable course if not treated.

Several severe cases of malaria in childhood are reported, but it is questionable whether they would be regarded as typically pernicious. One case was characterized by the obstinacy of the fever. Plasmodia were present in the blood. Arsenic and quinine had no effect, but the patient was cured by Warburg's tincture.

Another case had a severe enterocolitis and died; another had profuse epistaxis; another, an infant, died in convulsions.

The weight of opinion of the Society is that the two diseases most difficult to distinguish from malaria are typhoid fever and incipient meningitis, especially the latter, which often causes in the early stages an intermittent fever with the feelings of malaise and restlessness characteristic of malaria.

Tuberculosis and la grippe are the next two diseases most frequently confounded with malaria.

The great share of other conditions difficult to distinguish from malaria are gastro-intestinal troubles and are noted as indigestion, gastroenteritis, chronic intestinal catarrh and worms.

Other conditions occasionally confounded with malaria are disturbances associated with dentition, early stages of exanthemata, marasmus, and sewer-gas poisoning.

Four state that they never have any trouble in diagnosing malaria. One states that periodicity carefully watched will determine almost if not all cases of malaria.

The diagnostic value of periodicity by itself is slight, but when taken in conection with other symptoms is of considerable value. It must be remembered, however, that periodicity is not the sole property of malaria, but that it exists in many other diseases, notably in non-malarial neuralgia, tuberculosis, ulcerative endocarditis, pyemic conditions, and in meningitis.

Twenty-nine reporters have much difficulty in giving quinine to infants, because they vomit it unless given in minute doses. One writes that his difficulty is chiefly with the mothers. Four never give quinine to infants.

The method of giving quinine to children is quite uniform. A large proportion of physicians give the sulphate or bisulphate in pills. In infants on the other hand the methods of prescribing are extremely diverse. Some, in the case of a nursing baby, treat the mother. Seven use suppositories. One uses the carbamidate in suppository, another the sulphate, and another the oleate.

One uses an enema consisting of quinine and oil of sweet almonds, or cream.

Five use inunctions. One has the inunction of quinine made up with lanolin, another with glycerine.

Quinine has been used hypodermically in children by one.

Most physicians, however, give quinine by mouth, in liquid, powder or tablet.

The chief object of all the preparations is to disguise the taste. This is done to a certain extent by combining quinine with something to render it insoluble, such as tannic acid. The tannate of quinine in chocolate tablets is used by a large number of physicians. The value of the tannate of quinine has often been questioned, but it is worth while to note that recent investigations seem to show that tannic acid of itself is an efficient remedy in malaria,* and it is suggested that the compound tincture of cinchona and the fluid extract are often of superior medicinal value to the alkaloid on account of the presence of tannic acid in these preparations. But this is a subject that needs further study.

The liquid preparation that enjoys the greatest popularity is the suspension of quinine in the aromatic syrup

*Medical News, Vol. LXXII, Page 478.

of yerba santa. A few give quinine to children in solution by dissolving it with a mineral acid and adding syrup. Another way of giving it in solution is by adding antipyrin to the mixture, which renders the salts of quinine more soluble. Quinine in powder is prescribed by a few. When given in this way, the uncombined alkaloid is used and it is mixed with chocolate, coffee or ammoniated glycyrrhiza. Sixty observers note that malaria always yields to quinine treatment. Two of these make the reservation that in some cases it only yields after a preparatory treatment with a mercurial cathartic.

Twenty-four state that they have seen cases of malaria that have not yielded to quinine. One states that in certain conditions of the digestion it is either vomited or not absorbed and one got no result from it.

Most recognize the fact that when quinine fails it is due to faulty absorption.

Forty-two use no substitute for quinine, finding it satisfactory in all cases. Arsenic is used by twenty-four, occasionally in place of quinine, and sometimes in combination with it.

Two state that they have no success in the use of arsenic in malaria. Several others have doubtful results from its use. One states that he finds it efficient in one out of every three cases of malaria in which he prescribes it. One states that the results of treatment with it do not come up to his expectations. Seven usually get good results from its use. Only one states that he finds it uniformly successful. It may be that these discordant opinions may be explained by the variation in the dose and in the kind of cases treated. One of your Committee has used it with success in a case of the estivoautumnal type of malaria where quinine failed. In this case the patient was very anemic and the blood contained large numbers of crescents. Is it not possible

that the good results of arsenic in malaria are due to its hemoplastic properties? To check the paroxysms of malaria it is necessary to give arsenic in large doses, from ½ to 1½ grains daily, and even then it is uncertain and dangerous. Its real value lies in the anemia following malaria.

Warburg's tincture has been used by six in both tablet and liquid form. One prefers the tablets without aloes. One writes that he obtains better results with it than with arsenic.

All six who use it write favorably of it.

Cinchonine is used by three as a substitute for quinine. It is usually prescribed in doses of from one to ten grains with one-twelfth of a grain of soda and five grains of sugar to each grain of cinchonine. The pure alkaloid is used. These powders are almost tasteless and the results are said to be gratifying.

Cinchonidine is used by three.

The fluid extract of yellow cinchona is used by two with favorable results. Other remedies used as substitutes are nitric acid, salacin, apiol, snake root and opium. One observer writes that nitric acid either with quinine or alone is satisfactory where there is evidence of uricemia.

One uses the compound tincture of cinchona and thinks that the snake root in the preparation adds to its value. One thinks it well to use opium in combination with quinine in congestive types of malaria.

The three remedies which were specially mentioned in the questions sent out, have been little used.

Only two reporters have used phenocoll. The claims of this drug possibly demand more attention than they have received. It is very soluble, hence rapidly absorbed. It is not unpalatable and in some cases seems quite efficient. It has been used in adults with fair success where the condition of the digestion was such that

quinine was not readily absorbed. But its use in children and infants has as yet been so rare that no positive statement can be made regarding its value in these cases.

Methylene blue has been used by six. All of the reporters simply state that their results from its use were not satisfactory.

Eucalyptus has been used by seven. In the cases where it has been tried it has been used, not as a specific for malaria, but as an adjuvant with quinine, permitting a smaller dose of the latter. It has also been used in cases where there is great nervous debility and in cases of malaria showing chest symptoms, for its expectorant properties.

Thirty-three know of no prophylactic measures of any value in preventing malaria. Those prophylactic measures which are suggested may be classified as medical, dietetic and climatic.

The medicines suggested as being of value in preventing malaria are quinine, potassium iodide, calomel alone or in combination with quinine, a combination of quinine, capsicum and arsenic, and inhalations of eucalyptus through a mask.

Quinine alone is used by several in malarial localities to prevent the onset of the disease. In most cases the reporter does not state how he gives the quinine.

It may be well here to quote from the Medical and Surgical History of the War of the Rebellion: "The experience of the war appears to teach that when a command is to be temporarily exposed in a specially dangerous locality quinine should be used for the sake of such protection as it may give. But when a command is to be stationed for a long time in a malarial section prevention should be attempted by a judicious selection of the camp site and avoidance of predisposing causes, while quinine is reserved for the first manifestations of the malarial poison, and specific prophylaxis under con-

ditions of unwonted exposure or anticipation of relapses."

Dock describes with approval, in his article in Hare's System of Therapeutics, Plehn's method of prescribing quinine as a preventive. This consists in giving fifteen grains of quinine sulphate in one dose at intervals of seven days.

Calomel and quinine are given by several reporters. One reporter writes that in malarial districts the bimonthly use of calomel in purgative doses together with from three to ten grains of cinchonine, cinchonidine or quinine, once or twice weekly will almost invariably keep the subject free from all manifestations of malaria. Another keeps the patient on a small dose of quinine three days out of every seven. Another writes, mercurials if constipated and cinchona salts one day in every six or seven. Another advises the daily use of quinine, capsicum and arsenic. The use of quinine, then, as a prophylactic remedy resolves itself into the use of large doses once a week or small doses two or three days in a week.

Potash salts are given by one reporter to prevent malaria. He approves of the free use of potash salts, especially of the citrate. He writes that the iodide is also prophylactic, but that it is the base that he regards as remedial.

Arsenic, the remedy that one would think most used as a prophylactic, is mentioned by only one reporter.

Regarding dietetic measures, nine advise that all drinking-water should be either boiled or filtered. Two would have the milk boiled also. One when in a malarial locality would advise the avoidance of uncooked vegetables, celery, salads, etc. Many note intestinal disorders as predisposing to malaria and suggest a healthy condition of the gastro-intestinal canal as of great importance in preventing malaria. They order easily digested foods and an occasional dose of calomel to regulate the bowels.

Regarding hygienic measures, proper disposal of sewage, good drainage, and good ventilation are some of the means suggested. Three would not have the sleeping room on the ground floor, but give no instances to substantiate this preference. Eight would avoid damp night air. Four would avoid damp localities of all sorts, especially where there is much decaying vegetable matter, recent excavations, much shade, etc.

Ten suggest a change of air and soil in obstinate cases of malaria. It is here interesting to note Robinson's observation that malaria of a most pronounced type develops on a rocky soil with a substratum of clay. Two suggest mountainous districts as favorable for patients suffering from malaria. A few mention the importance of avoiding the bites of insects and especially mosquitoes. It is interesting to note here the observations by Emin Pasha quoted in Stanley's Darkest Africa that none of those of the party who slept under mosquito-netting had malaria. The explanation at that time was that the netting acted by breaking the force of the air current that carried the germs, but according to more recent ideas it seems more probable that it was due to shutting out the mosquitoes.

Opinions regarding the development of malaria in a nursing baby after the mother had been ill with malaria do not harmonize. One reporter finds the infant sick just as often before the mother as after.

One writes that it is not uncommon for infants to show signs of malaria when the mother has had the disease for some time. Another reporter writes: I have seen two typical cases of intermittent tertian fever in nursing mothers, one with child four months old, the other with child seven weeks old. In both cases the baby nursed until it became cross and peevish, but both became quiet when placed on the bottle and neither developed the disease.

Sixteen write that they have seen malaria develop in nursing babies following the disease in the mother, but the most of them cannot report the cases, as they have no records. It is difficult to determine therefore whether the malaria was communicated from the mother or arose from the same source where the mother contracted hers.

The digestive ailments in a nursing baby due to the quality of milk furnished by the mother ill with malaria should not be confounded with malaria itself.

Several report cases of the development of malaria in infants soon after birth, but while these cases are interesting they have no bearing on the question of the communication of malaria by the milk. In such cases the plasmodium probably entered the system through the placental circulation before birth.

In infants the most common type of fever is quotidian, in children tertian. Only two reporters have seen any cases of quartan fevers in infancy and childhood. Three reporters state that the type of fever they see is irregular. Forty reporters have seen what they consider continued malarial fevers in infancy and childhood. Thirty-seven have never seen such cases. One writes, I have seen cases of continued fever attributed to other causes where malaria had been present a long time without treatment.

One reports a case of obstinate continued fever in a child where the blood contained the plasmodium and which readily yielded to large doses of quinine. Another writes, I think all continued malarial fevers, so-called, are either tubercular, typhoid, or if lasting a day or two, irritative fevers.

In addition to the above report on malaria the Committee wish to mention the following interesting cases, reports of which have been sent to the Committee by the county reporters. It would make the report of the Committee too long to read the full reports of these

cases and any abstract would do them injustice. It is hoped that the Society may see fit to publish them in its transactions.

An interesting case of cholecystotomy followed by cholelithotomy and the extraction of 502 stones is reported by Dr. Howe of Hartford.

A case of metastatic suppurative choroiditis following an attack of cerebro-spinal fever is reported by Dr. Peck of Norwich.

The following interesting cases are reported as having occurred during the past year in the surgical service of the Bridgeport hospital: Tuberculosis of the knee, treated by resection: Carcinoma of the liver, exploratory incision: Amputation of the foot for railroad injury, treatment with bovinine: Bullet wound of the skull, exploration, recovery: Wound opening into trachea, suturing, recovery.

The Committee has received the report of a committee of the Hartford County Association, appointed to consider the advisability of establishing a certified milk farm in Hartford County.

The establishment of such a farm is a step in the right direction and should receive the hearty support of the Society.

Respectfully submitted,

S. B. Almy,
H. A. Crane,
C. J. Foote,
Committee.

PART II.

A CERTIFIED MILK FARM.

REPORT FROM HARTFORD COUNTY.

The committee appointed at the last meeting of the Hartford County Medical Association, to consider the advisability of establishing a certified milk farm in Hartford County, respectfully present the following report:

In seeking a remedy for the difficulties which surround the milk supply of our cities, we must consider the question broadly and thoroughly; first, from the requirements of the physician, second the consumer, and third the producer.

First, for a pure standard of milk for clinical purposes, uniform nutritive value, reliable keeping qualities and freedom from fermentive and pathogenic bacteria are necessary for satisfactory work in infant-feeding and as a dietary for the sick.

Second, the consumer: An important phase of the question in regard to the consumer of milk is not alone a pure standard but the preservation of the milk in its purity in the home where it is to be used. People, as a rule, are not sufficiently careful of the milk to protect it from noxious influences. They do not know or do not realize that milk is one of the best culture-mediums for the growth of bacteria. All too often we find careless management will allow changes to occur which render milk entirely unfit for use. This fact, that people are not sufficiently careful, must influence us very largely in adopting a plan for pure milk. Naturally attention is directed first to the dairy, but if a milk, however pure, is allowed to spoil by carelessness in the home our efforts in the dairy amount to very little.

Third, the producer: While we recognize the difficulties in the home we must also realize that care, be it ever so exact, will not convert a poor milk into a good milk and therefore it is necessary first to regulate the production of milk in the barn, that the standard may be correct; then to direct our attention to its preservation in the home. For a pure milk the greatest care and attention to the details of cleanliness is necessary.

Cows should not be kept in unhealthy places or fed with food producing unwholesome milk, nor should milk be obtained from animals in a diseased or unhealthy state. The dairy must be kept clean and the cows groomed and kept free from manure on flanks, udders and teats.

The men employed about the barn must be clean and their hands must be washed thoroughly before milking.

The cans and strainers must be washed with boiling water, to which soda has been added, and coolers and tanks must be kept scrupulously clean and free from dust.

In fact cleanliness must be absolute to insure a milk even moderately free from bacteria.

How best to secure this care is a question attracting the attention of scientists and men interested in public health to-day.

Two lines of action may be adopted:

First, by law: In a neighboring city visited by a member of your committee, during the past summer, the Health-Board has exercised its legal power and has issued a circular of rules and regulations governing the milk supply of the city; requiring registration of all persons and corporations engaged in selling or furnishing milk and the inspection of herds, dairies and appurtenances by duly authorized inspectors.

Exact and stringent rules are given for the dairy, care

of the cans, strainers, etc., and a fine of not less than fifty dollars or imprisonment not exceeding one year, or punishment by both is imposed for failure to properly observe the instructions of the Health-Board.

To your Committee there seemed to be two great objections to this plan:

First, the lack of security to the people. If laws are passed regulating the milk-supply, people naturally feel secure that the milk they use is good and pure. We do not believe it possible, without great expense, to institute a system of inspection which will absolutely control the milk-supply of a large city.

Second, the injustice to the dairyman, in passing arbitrary laws, which in their ultimate results are exceedingly uncertain from a clinical standpoint. To enforce such rules, even for the benefit of the many, seems to us unwise. To observe the rules and regulations of the Health-Board must in many instances, impose such hardships that the welfare of the individual is seriously interfered with. To observe the law, presuming it would be observed, means a higher grade of workmen at increased wages, more help and unceasing vigilance.

While we recognize that all this must ultimately come, we feel for the present there are more satisfactory means of obtaining the same or better results. Our experience with tuberculosis laws does not extend undue encouragement to apply to the law makers for relief.

Second, medical supervision.—Probably no one is better qualified by education and training to advise as to conditions necessary to a pure milk than the physician, and the rapidly increasing interest of the medical profession in the clinical relations of the milk-supply is evident.

Recent advances in bacteriology have proven that much of the illness of mankind is due to the toxic principles of fermented and contaminated milk. Epidemics of

typhoid fever and diphtheria have been directly and undoubtedly traced to infected milk and the merest tyro in medicine has long recognized the intimate relationship existing between milk and the summer diarrheas of young children.

The subject of pure milk appeals more especially to the physician than to any one else, for he, by his experience, best appreciates the difficulties and discouragements incidental to a poor milk, in the feeding of the young and the diatetic management of the sick.

Where the physician has become the custodian and supervisor of milk production, astonishing results have been accomplished. In Newark, N. J., and many other cities, where certified milk-farms have been instituted the number of bacteria in that milk has been dropped from hundreds of thousands to two or three thousand and less per C. C and the mortality among children has been appreciably lessened.

In New York City, where it is possible to obtain a rigid control of the milk trade by the Board of Health, the results obtained are phenomenal. For the week ending August 21, 1897, the mortality is the lowest in twenty-five years, 20.09 per one thousand. The first week in August was 20.78.

This favorable showing is due, in large measure, to a remarkable decrease in the number of deaths among children. There has never been a year when there has been so little cholera infantum. (Medical Record.)

The plan of certified milk, as explained by the originator, Dr. Coit, in a paper on a plan to procure cows' milk designed for clinical purposes, includes three general requirements:

First, That physicians give their practical support to an effort conducted by a commission selected from their own number, who shall endeavor to bring to the city a

supply of milk, produced under such regulations that purity shall be assured.

Second, that approved and trustworthy dairymen, possessing honor, financial ability and dairy facilities, shall be induced by reason of promised medical support and the increased price of their milk, to conduct their dairies, collect and handle the products, in conformity with a code of requirements made by the aforesaid medical commission, and imposed by them in due legal form.

The contract shall include the sureties for its fulfillment; the location and the character of the land; the construction of buildings; the water supply; the surroundings; the health and breed of the dairy stock; the housing and care of the cows; the feeding; the collection and the handling of the milk; its cooling and preparation for shipment; the bottling and transportation, together with the minor details of delivery.

Third, That the commission shall carry on its work without pecuniary compensation. Their duties shall be: First, to establish correct clinical standards of purity for cows' milk; second, to be responsible for a periodical and personal inspection of the dairy or dairies under their patronage; third, to provide for expert examinations of the dairy stock by a competent and approved veterinarian. The milk produced shall be subjected to chemical analysis and to bacteriological tests, made under the direction of the commission at such times as in its judgment it is desirable.

The veterinary surgeon, chemist and bacteriologist shall be selected by the commission, and when so requested, either periodically or otherwise, they shall render their reports in writing. The expense of all examinations should be defrayed by the dairyman, since he is the only party gaining a pecuniary advantage. These expert reports, although designed for certificates,

may also be used for the information of the medical fraternity, in the localities where the milk is sold.

The milk thus produced should be known as certified milk; should be sealed in separate quart containers and bear the name of the producer, together with the date of milking.

This plan was submitted by your Committee to two representative dairymen of this city and it met with their hearty approval.

If adopted for Hartford County, some modification in detail would probably be found necessary, but the underlying and all-important principles of the plan could be successfully observed. The one prominent idea is cleanliness in everything pertaining to the production of the milk and a strict observance of the ordinary common-sense laws of health, applied to the herd. The effort is to prevent infection of the milk in the barn, during preparation for market and delivery and by proper care and management to produce a milk of reliable keeping qualities, uniform nutritive value and freedom from bacteria.

The advantages of this plan to the physician are evident: First, it places at his disposal a milk as pure as can be produced; second, it provides a chemical report of the several constituents of the milk and a bacteriological report of its condition; third, by veterinary supervision it eliminates all danger from diseased or unwholesome milk; fourth, it relieves the physician of all worry and uncertainty of the quality of milk he is using, and in case of sickness in bottle-babies is a material help in investigating the cause; fifth, it relieves infant feeding of many of the difficulties now so often the trial of the physician's life.

The scheme is not an experiment; it has passed its experimental stages and is now an assured success endorsed by the medical profession generally where the

farms are known. And these farms have not only raised the standard of milk, directly under supervision, but have, by force of example and education, improved the quality of all milk sold in towns where people are familiar with certified milk.

A slight increase in the present price is necessary. No man can give the care which must be given to insure a pure milk at the price now paid. Better food, more individual care, more intelligent and careful men at increased wages, the necessary examinations and more expense in delivery are unavoidable.

In adopting this plan, your Committee would not antagonize the milk industry of our County. As physicians we would recommend a certified milk in the same manner and spirit as we would employ a medicinal preparation of known purity and strength, simply because it is the best we can get for our use. An agreement between this Association and one or more dairymen who will furnish us with a milk of a proper standard and character for clinical purposes, cannot in our minds be considered an objection. Our action is disinterested, except so far as it improves the standard of milk we require for our work and we endorse a dairyman who endeavors to provide a milk of higher grade than ordinary for exactly the same reason that we recommend a druggist of known ability and integrity.

To the dairyman the scheme presents a fair and reasonable business arrangement for his consideration. If he is willing to honestly and conscientiously observe the rules of the commission, the commission will in return certify the milk from his farm.

Your Committee, therefore, would recommend that this Association appoint eight members to be known as the Milk Commission of the Hartford County Medical Association.

That this commission be empowered to draw up and

sign a suitable agreement between the Hartford County Medical Association and a reliable dairyman possessing honor and financial ability, who will observe the rules and regulations of the agreement as proposed by the commission. Signed,

WALTER G. MURPHY,
EDWARD K. ROOT,
ALVA E. ABRAMS,
CHARLES E. TAFT,
ARTHUR J. WOLFF.

PART III.

CHOLECYSTOTOMY FOLLOWED BY CHOLELITHOTOMY, AND THE EXTRACTION OF FIVE HUNDRED AND TWO STONES.

HARMON G. HOWE, M.D.,

HARTFORD.

Mrs. L., aged sixty-one, widow, full habit, weight about two hundred and twenty-five, German, has suffered from so-called bilious colic for the last twenty years. On September 13, 1897, was called to attend her and found her suffering pain in the region of the gall-bladder, with accelerated pulse and slight rise of temperature. Upon physical examination I found a tumor in the region of the gall-bladder and extending down about to the umbilicus and back under the short ribs, slightly tender to the touch, and (as nearly as I could make out through the thick walls of the abdomen) smooth and hard. The pain was relieved by morphine only to return the next day. I watched the case closely for the next six days, during which time she had three distinct chills which indicated to my mind a collection of pus in the tumor. She was not jaundiced at any time, indicating that the common duct was intact. The tumor continued to increase from day to day, and the patient was failing in strength and suffering constant pain, when not under morphine. On Sept. 20, it was decided to operate the next day. The patient was prepared in the usual way for a laparotomy. The bowels had been kept loose, and she had been on a liquid diet for some days (milk only). On Sept. 21st I operated upon her (assisted by Drs. Ingals and McKnight), Dr. Waters giving the anesthetic. The incision was made over the tumor, extending obliquely

downward and inward about six inches in length. The patient was very fat, I should say about three inches having to be cut through. On entering the abdominal cavity a smooth tumor was exposed, which upon examination proved to be an immensely distended gall-bladder. The bladder was caught by two silk ligatures as in suprapubic cystotomy.

Then the peritoneum was stitched up over the muscles and onto the skin, and the gall-bladder by a continuous suture was stitched to the peritoneum, exposing the crown of the tumor about two inches in diameter. The remainder of the abdominal incision through the abdominal wall was closed by two layers of sutures. Then the gall-bladder was incised, when there escaped quite a quantity of pus and thick viscid bile. The scoop was used and there were extracted in all five hundred and two gall-stones. The bladder was washed out with sterile water, packed with iodoform gauze, and the wound was dressed. The stones varied in size from that of a millet-seed to a good-sized pea, or perhaps a trifle larger. The patient has progressed finely and the wound looks well, and is in a fair way toward closing up. The bile in a measure still escapes by the fistulous opening of the gall-bladder, but I think quite a part of it passes into the bowels, as the stools are colored and the digestion is fairly good.

The unique features of the case are the extreme size of the gall-bladder, the unusual number of stones, and the performing of the operation without the escape of any bile into the abdominal cavity.

MEDICAL PAPERS.

REPORT ON THE PROGRESS OF MEDICINE.

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A wise man said, "Of the making of books there is no end." Had he lived to-day he might have said the same thing in reference to medical papers and articles. It is no easy task to select, among all which have appeared the last year, just what shall be most valuable, and most deserves attention. It is impossible in this paper even to allude to many things in medical progress which have been brought about in the last year. Many of these are valuable and have cost intense effort. Indeed we may truly say that in no other profession is there shown more untiring energy, more unselfish devotion, more constant reaching out after truth. This paper then must omit the record of many real steps of progress because it has seemed wiser and more useful to our present needs to record of many real steps of progress, because it has the year's progress rather than to spend the time in a too superficial outlook over a wider field.

The most important contribution to the progress of internal medicine during the year is that relating to the serum test for the diagnosis of typhoid fever. The original reaction was discovered and noted by Pfeiffer. Widal and Grünbaum working independently put the test to practical use about the same time. Widal worked with greater precision, and described the test with greater care, so that it has been generally known as the Widal test.

In the light of another year's experience with diphtheria antitoxin, a review of that subject must be of interest to us. Proof of the bacterial origin of a well-known

disease is worthy of note, a specific micro-organism having been discovered and isolated in yellow fever. In the domain of treatment we are still kept in touch with bacteriology. Advances in serum-therapy, and a new disinfectant mark the progress. Some notice should be made also of the report of the Leprosy Congress.

TYPHOID FEVER.

Typhoid fever—always the theme of much writing and discussion—has now become so more than ever through the Widal test. Nothing new otherwise has developed in connection with it. A few interesting facts have been discovered since Elsner's method for determining the presence of typhoid bacilli appeared. Remlinger and Sneider (Annal. Inst. Pasteur, Jan. 25, 1897) found in thirty-seven samples of water taken at random from sewers, springs and rivers, nine contained typhoid bacilli. Only two of these specimens came from regions where typhoid fever was epidemic. In thirteen specimens of dust it appeared in seven. Wolf (Berlin Klin. Woch., No. 39, '96) reports an epidemic on Neuhof Island not due to water or milk, and states that it must have been carried through the air. Another extensive epidemic occurred where the only possible source of contagion seemed to be a field fertilized by human feces. The beginning of the epidemic followed the plowing of the field, and a strong argument is held forth for the possibility that air may at times be the medium for carrying the infection. Another oyster infection is reported by Chauteresse (Gaz. des Hospitaux). The oysters were served to six families. Fourteen members of these families ate of the oysters and without exception suffered from typhoid fever, while no other members were afflicted.

The chief interest now, however, centers about the diagnosis. For many years knowledge has been accumu-

lating which has finally led to the brilliant discovery of the relation between the blood-serum of an infection and the infecting micro-organism. Pfeiffer discovered this reaction when micro-organisms were injected into animals suffering from the disease. Later it was found that the same reaction took place in culture media outside the living body. Widal turned this purely scientific experiment into a brilliant, practical discovery in diagnosis. The far-reaching effects of this discovery can hardly be over-estimated. It is not simply an aid in the diagnosis of typhoid fever, it is the discovery of a great principle underlying all infections. Already the same method of diagnosis has been applied to cholera, diphtheria, plague and pyocyanus infections, and the work is still in its infancy.

When a small amount of blood-serum from a typhoid patient is added to a bouillon culture of typhoid bacilli, in eight to sixteen hours the turbidity disappears, the liquid bouillon clears up, and the bacilli fall to the bottom of the tube. When this phenomenon was studied under the microscope it was found to be due to the fact that the bacilli lost their motility, agglutinated, and thus fell to the bottom. This agglutination takes place on the stage of a microscope in a comparatively short time, so that a typical field does or does not appear in about one hour. So accurate is the test that in the best hands it renders the diagnosis certain in over ninety-seven per cent. of cases.

The test is made in the following manner: A drop or two of bouillon culture of typhoid bacilli is placed in a cupped slide, a platinum loop moistened in sterile bouillon is then rubbed over the dried blood-drop and smeared upon a cover-slip. This is inverted over the cell and the whole examined after the manner of the hanging drop. The secret of making the test successfully seems to lie very largely in the care and growth of the culture.

Typhoid cultures grown at 37° C. reproduce with great rapidity, and the members of the colonies are exceedingly small, and are studied only with a one-twelfth oil-immersion lens. Cultures grown at a much lower temperature, divide very slowly, and the individual bacilli remain attached to each other in long threads. These threads from the motion of the individuals have a waving, snake-like motion across the field of the microscope. They are readily seen with a one-seventh objective, and the slightest inclination toward loss of motion or grouping is seen at once. The reaction is very pronounced, and readily seen by one unfamiliar with the technique of culture-preparing and slide-mounting, so that it becomes a matter of knowledge and skill in these things, rather than any special judgment as to whether or not the reaction is taking place.

This reaction takes place not only with the blood-serum from typhoid patients, but with many of the other fluids of the body. Achard and Bensand (Bul. de la Soc. Med. des Hosp., July 26, 1896) observed that milk taken from the breast of a two-months mother suffering from typhoid fever gave the reaction. Catrin (Gaz. de Med. de Paris) found it in pus taken from an arm which developed a phlegmon following a typhoid attack. It has also been observed to take place with fluid taken from the pleural sac, with tears, pericardial and peritoneal fluid, bile, aqueous humor of the eye, fluid from the seminal vesicles, spleen, liver, and mesenteric glands, and with the urine.

There are three ways of observing the reaction, by the culture, by mixing in a tube of bouillon culture of the bacilli, or by the hanging drop. Frankel (Deutsch Med. Woch., Jan. 14, 1897) says the hanging drop is far and away the most delicate, the most accurate, and the most rapid. The earliest period in the disease when the diagnosis can be thus made seems to be the second day (Wien. Med. Woch., Nov. 5, 1897).

The chief source of error in applying the test seems to be in connection with the proper dilution of the blood to be tested. The concensus of opinion seems to be that one part of blood to ten of the diluting medium gives surest results. Wyatt Johnson dilutes with water; Stewart of the Health Department of Philadelphia, with sterile bouillon.

In a recent article by Widal (Ann. Inst. Pasteur, Nov. 5, 1897), he says that typhoid bacilli destroyed by antiseptics still present the phenomenon of agglutination. He draws from this fact the interesting conclusion that "the phenomenon of agglutination is, then, not a vital reaction, but rather a passive one on the part of the protoplasm of the microbe." Widal examined five hundred cases, in which number were one hundred and sixty-two typhoids, and obtained universally positive results. In no case of the entire five hundred did he make an error in diagnosis. The conclusions given by Widal are:

1. The agglutinative action is a phenomenon of infection. It makes its appearance during the first days of the disease, but may be retarded, or even (rarely, however) absent.

2. It is not a vital reaction of the microbes.

3. A negative reaction furnishes a probability against the diagnosis of the typhoid fever, but it is only a probability. This is especially the case when the test is made during the early days of the disease. The examination should always be repeated during the following days.

4. A positive reaction obtained by following the rules laid down should be considered as a sign of the certitude of typhoid fever.

In reference to the treatment of the disease no great changes have as yet been made permanent. Several cases have been treated with anti-typhoid serum. Results thus far reported are very contradictory, and the number

of cases treated few; so that no conclusion can be drawn. It is interesting to note that three cases reported by Pfeiffer and Kolle were injected with attenuated cultures of typhoid bacilli. The injections were followed two hours later by chills, pain and great tenderness at the point of injection; but the temperature fell to 100°, all the symptoms disappeared and eleven days later in the blood was found a specific bactericidal substance not previously found. They add that this may prove a point toward a possible vaccination in times of epidemics.

The cold-bath treatment by the Brand method continues to give the best results of any single method. Osler, while deprecating the harshness of the treatment, concludes that "the cold bath treatment, rigidly enforced, appears to save six to eight in each one hundred patients." "It is noteworthy," adds one of the reviewers of the year, "that the experience of those who have recorded the results of treatment in large hospitals has with great uniformity been favorable to the Brand method. Untoward results undoubtedly do occur, but it is no more necessary to exercise judgment in the use of the Brand method than in carrying out any other form of treatment."

Four more new cases are reported from Bellevue Hospital treated by the Woodbridge method with an apparent result in cutting short the duration of the disease.

One thing may be confidently expected as a result of the general use of the Widal test, as the microscopical test has done for diphtheria, that with this means for accurate diagnosis there will be fewer men who will win easy reputations for immediately curing this grave disorder.

Yellow fever, clinically, among us excites no interest. It is rarely seen in our climate. This makes it even more imperative to discuss any advances made, lest among many things of greater immediate value these may escape

our attention entirely. Saranelli (Sem. Med., July 7, 1897) describes a bacillus which is now very generally considered to be the specific cause of yellow fever. This micro-organism he calls the bacillus icteroides. He describes it as a small rod with rounded ends, two to four micro-millimeters in length. It grows in pairs when on an artificial culture-medium, and in groups in the tissues. It is never found in pure culture in the cadaver, and can only be isolated in fifty-eight per cent. of cases. Strangely enough, also, when found it is not in the gastro-intestinal tract at all, but throughout the blood, and in the tissues.

It is facultatively anerobic, resists drying, and stains by Gram's iodo-iodine stain. It is pathogenic for nearly all animals, and causes fatty degeneration throughout the organs, congestion and hemorrhages, and is emetic. Injections of the filtered cultures in man invariably produce typical yellow fever. In eleven autopsies Saranelli found the bacillus icteroides always in mixture with the colon bacillus, streptococcus, staphylococcus or with all these combined. He says, "In yellow fever, as in typhoid, the alimentary canal becomes the seat of an overwhelming number of colon bacilli, so that they are recovered in almost unmixed infection." He gives three reasons why it is hard to find the bacillus: 1. The bacilli are but few in number, the toxin being intensely virulent. 2. It undermines the mucous membranes so that they become open to all the secondary infections. These latter not infrequently give a true septicemia due to the colon bacillus, streptococcus, or staphylococcus which of itself is sufficient to kill the patient. 3. From all evidence in, up to date, the poison seems to be developed, not in the gastro-intestinal tract, but in the blood and tissues."

It is found most readily by taking a piece of the liver from a freshly dead body, and placing it on one of the ordinary culture media at 37° C. for twenty-four hours.

The colonies grow in the oven, and exposed simply to the air of the room, grow entirely differently, so that a diagnosis from the colonies may be made in twenty-four hours.

The cause of the black vomit, cephalalgia, rachialgia, hepatalgia, etc., is the intense congestion of the vessels, which is one of the specific actions of the bacillus icteroides. Five experiments were made upon men with bouillon cultures filtered, sterilized, and treated with formaldehyde. Two injections were made sub-cutaneously, and three were intra-venous, with this conclusion: "The injection of the filtered cultures, in a relatively feeble dose, reproduces, in the case of man, typical yellow fever with its imposing results anatomically and symptomatically. All the symptomatic phenomena, all the functional alterations, all the anatomical lesions of yellow fever, are only the result of the steagenous, emetic, and hemolytic qualities of the toxic substance made by the bacillus icteroides."

Saranelli gives a résumé of his investigation (Annal. Inst. Pasteur) as follows:

1. Yellow fever is an infectious disease, due to a well-defined micro-organism, susceptible of being cultivated by means of artificial media and of being recovered not only from the cadaver but from the living patient.

2. Its isolation in most cases is accompanied by almost unsurmountable difficulties, due partly to the constant presence of secondary infections and partly to the relatively few bacilli numerically in the organism.

3. The secondary infections are almost always well-known bacilli; streptococcus, staphylococcus, colon bacillus, and bacillus proteus. These are so intense that that no doubt death is due to them rather than to the special micro-organism, bacillus icteroides.

4. It is probable that the various forms of the dis-

ease manifested are due to the predominance of one or other, as the case may be, of the secondary infections.

5. It is only in cases which progress regularly that the special bacillus is found.

6. If uremia, or septicemia sets in the bacillus is very hard to recover.

7. The bacillus icteroides once introduced into the organism determines not only a general intoxication, but produces the specific alterations on the vessels, digestive tube, and liver.

8. In the liver it produces rapid degeneration histologically; in the alimentary tract a hematogenous gastro-enteritis; in the kidney it gives rise to a parenchymatous nephritis.

9. As the kidney lesion is so important, "Anuria determines the prognosis."

10. The causes of death in yellow fever are the bacillus icteroides, other micro-organisms of secondary infectious and renal insufficiency.

11. The vomiting is due directly to the specific, emetic action of the bacillus icteroides in the blood.

12. Transmission from diseased to healthy persons is proven to be through the respiratory tract.

Sanarelli was able to produce a well-marked immunity in rabbits, dogs and horses. "The preventive and curative action," he says, "of the serum of rabbits, of dogs and of horses vaccinated against the bacillus icteroides ought to be considered as absolutely demonstrated in animals."

It certainly is not too much to hope, yes, to expect, that out of this eventually will come a treatment applicable to man, and we shall add one more stronghold of death to this list of the conquered.

DIPHTHERIA.

Etiology. Very little has been added in the past year in regard to the etiology of this disease. Gordon Sharp (British Med. Journal, Aug. 22, 1896) reports the examination of soil where years before a virulent epidemic of diphtheria had raged. He concludes from his investigation that: 1. Diphtheria is endemic in some places, especially in peaty soils with a hard sub-soil; 2. Drainage and a large amount of fresh air will disinfect an old infected soil.

Diagnosis. The demand for the bacteriological diagnosis of diphtheria justly increases. When the diagnosis once made entails quarantine, and often deprivation and hardship, people have a right to demand that none but the most careful diagnosis shall be made. There is perhaps no other disease in connection with which unscrupulous practitioners more frequently deceive their patients and gain a reputation for remarkable cures than in this one. And the earlier our citizens demand protection, and put into health offices men competent to carry out their demands the earlier will they be relieved from no small source of danger. Biggs of the Health Department of New York reported last April four hundred and fifty primary cultures, of which only two hundred and thirty-nine proved to be true diphtheria. One hundred and seven reported as diphtheria were excluded. During the same period only eighty of those reported as doubtful were pronounced true diphtheria. Bolton in Philadelphia had a similar experience.

Pathology. An interesting feature of the pathology recently added to our knowledge is that the disease is attended by a pronounced leucocytosis. This is greater at the climax of the disease, and in favorable cases continually decreases toward the end of the disease. In fatal cases it continues until death. The degree of leucocytosis is

proportionate to the fever and the amount of membrane. The intra-vascular leucocytosis of diphtheria measures exactly the systematic reaction against the toxic products circulating in the blood, and absorbed from the site of the affection. The effect of antitoxin is to cause in about thirty minutes a hypo-leucocytosis. Especially is the number of uninuclear leucocytes decreased while no change, or a possible increase even, in multi-nuclear ones takes place. After a dose of antitoxin, in a case which is going on favorably, the number of leucocytes do not again during the course of the disease return to the abnormal count at the time of the injection.

In reference to antitoxin treatment a few cardinal questions arise in one's mind at once. When should it be used? In what dose should it be used? Should it be used as a prophylactic? What, if any, are the dangers dependent upon its use? Is it efficacious? Light is thrown upon all these questions by another year's experience in its use.

When should it be used? Certainly the weight of authority concludes, not in every case. M. P. Haushalter (Gaz. Hebdom. de Med. and Chir.) says: "In case the pseudo-membrane is white and bacteriological examination shows the presence of staphylo—and streptococci with the short bacillus, the use of antitoxin may be deferred unless laryngeal symptoms arise. Antitoxin should be given immediately, without waiting for the result of a bacteriological examination, if the pharyngeal deposit is extensive, or if there be laryngeal symptoms, whether there is membrane elsewhere or not." If it is to be used in a case, however, the earlier it is given the more sure the result, so that it would seem where there is any question of doubt it is better to err on the safe side. Give it at all events and do it early.

In reference to dosage, six hundred units in a mild case without any severe general symptoms is quoted as suf-

ficient. With a thick membrane, and severe general symptoms six hundred units, repeated in twenty-four hours if necessary, or a case where the membrane lines the entire throat, fauces, pharynxuvula, tonsils one thousand five hundred to two thousand units, also repeated in twenty-four hours if necessary. As large single doses as three thousand units are reported, and five thousand have been given in the course of the disease. These figures are given by Monti, who is of the firm opinion that many unfavorable results reported are due to too small doses of the antitoxin. Haushalter says that if the bacillus be associated with streptococci, antitoxin should be in large doses, and frequently repeated. Perhaps the most conservative view of immunizing doses, held by a believer in antitoxin, is that stated by Frankel. He "does not" believe that the causal connection has been definitely proved in the six or seven fatal cases collected by Gottstein (Therap. Monatsh, May, 1896), yet many physicians will hesitate before recommending a not absolutely harmless measure against a not absolutely certain infection." The concentrated serums are, however, rendering the risk so slight that it may be scarcely considered.

Billings has added to our knowledge of the effect of the antitoxin upon the blood. He concludes that there are no deleterious effects upon any constituent of the blood from the use of antitoxin. Dixey wrote some time ago: "That the antitoxin in itself is practically harmless, may be considered well established in view of the countless number of injections that have been made with but few fatalities attributed to its use; and in these cases the evidence is either so complete as to clear the injections from all blame, or so incomplete as to allow of no positive deduction. The unpleasant effects such as polymorphous symptoms, fever and painful joints are all clearly due to the serum and not to the antitoxin."

With more concentrated serums now in use these unfortunate sequelae may confidently be expected to disappear altogether. W. M. Donald (N. Y. Med. Journal, May 21, 1898) writes a very valuable contribution upon this subject. He draws his conclusions from statistics furnished by charitable institutions and homes for children, where "a single case of diphtheria is certain to be the focus for the extension of the disease to a goodly number of the other inmates." April 2, 1896, in the Detroit Protestant Orphan Asylum there was discovered a case of laryngeal diphtheria. In seven days, despite all care, seven new cases developed. Two hundred and fifty units of Parke, Davis & Co's antitoxin were administered to each of the remaining eighty-seven children. Ten days later one case of pharyngeal diphtheria developed, but the eighty-six remaining were immune. In January to December, 1897, outbreaks began again in the same institution. In the three outbreaks two hundred and forty-six children were immunized and of these only two afterward suffered from diphtheria. Out of all these four developed a moderate urticaria and three a slight erythema. The dosage was two hundred and fifty, three hundred and five hundred units. The children range from two to fourteen years. All the cases where any doubt existed were diagnosed microscopically. It will be hardly necessary in a meeting like this to quote figures in regard to the efficacy of antitoxin, or urge its use. The mass of the profession believe in it, and are approaching the point where it is considered criminal in a severe case of diphtheria to omit this great remedy.

LEPROSY.

Without going into the detail of the report of the Leprosy Congress it is important to note that the ultimatum of that body regarding the question of contagiousness

of the disease is that it is contagious. So conclusive was the evidence that some most eminent men in the profession formerly much opposed to believing it contagious have completely changed their opinions. One report of cases may be interesting. Havleburg (Berlin, Klin. Woch.) reports a result of extensive observations in Rio Janeiro. His conclusions from the study there of about three thousand cases are that: 1. The disease is contagious; 2. The period of incubation is often as much as two years; 3. Nearly all the subjects ultimately die of tubercular phthisis; 4. It is very important to prevent the subjects of leprosy from traveling, and especially from entering countries where the disease is rare or practically unknown.

GENERAL THERAPEUTICS.

In reference to animal extracts nothing new has occurred of importance since George Oliver (Ind. Med. Rec., Oct. 16, 1896), and Muret (U. Am. Pract., Dec., 1896) made their reports. Considerable work has been done, but only contradictory and inconsistent results have thus far been obtained.

Mention has been made of serum-therapy in connection with diphtheria. One interesting report upon plague-serum is made by Hoffkine (British Med. Jour., June 12, 1897). One hundred and fifty-four prisoners of three hundred and forty-five were inoculated with sterilized bouillon cultures of plague bacilli. On the day of inoculation six cases occurred among the non-inoculated, and three among the inoculated. During the remainder of the epidemic twelve cases were among the non-inoculated, six dying; two cases among the inoculated, both recovering. Aside from these cases in the infected area 11,362 persons were inoculated, out of which number only forty-five were attacked by the plague, and of these only twelve cases were fatal.

Concerning the other serums reported and discussed, anti-pneumococcic, anti-tubercular, anti-streptococcic, paratyphoid, etc.; concerning all these the evidence is either too scanty, or too uncertain, to draw as yet a just conclusion as to their value.

A really valuable new antiseptic seems to have been found. Commercial formaldelyd, or formalin, is the forty per cent. (saturated) solution of formaldelyd. It is useful in most cases where an antiseptic is needed. It is in weak solution, free from taste and odor. It is easily volatile, and non-toxic. Walter (Art. quoted in Univ. Med. Mag., June, 1897) reaches the following important conclusions: 1. Formalin in the strength of one to ten thousand arrests the growth of the germs of anthrax, cholera, typhoid fever, diphtheria, and the staphylococcus pyogenes aureus; 2. In the gaseous form it arrests growths, even when greatly diluted; 3. In one per cent. solution it kills pure cultures of pathogenic germs in one hour. In dilute alcoholic solutions it is much stronger; 4. In three per cent. solutions with alcohol the hands may be freed from all germs; 5. By means of formalin, leather articles, uniforms, etc., may be thoroughly disinfected in large quantities and without injury to the articles. Twenty-four hours are necessary for the disinfection; 6. Feces are disinfected in ten minutes of a ten per cent. solution.

Perhaps its most important characteristic is that owing to its power in permeating organic substances it is germicide in the gaseous state. A room may, with its accompanying furniture, be completely disinfected in six hours. It has a considerable power of penetration, although as Doty concludes it is most efficacious when the surfaces to be disinfected are well exposed. Horton of the Laboratory of Hygiene, University of Pennsylvania, conducted a series of experiments in book-disinfection. He concludes: 1. Books may be disin-

fected by using 1. c. c. of commercial formaldehyde to every 300 c. c. of air; 2. The effect produced in fifteen minutes seems to be equivalent to that produced in twenty-four hours; 3. An increase in the amount of air to each c. c. of formalin is not counterbalanced by an increase in time of exposure; 4. When disinfection was incomplete the bacteria survive only on being soon removed to favorable culture media; 5. The use of the formalin is not detrimental, as far as observed, in any manner to the books, or objectionable to the operator beyond a temporary irritation of the eyes and nose. There are a number of formaldehyde generators on the market, for use of room disinfection. Robinson's lamp was the first of these inventions. A lamp known as "The Primus" and manufactured at 197 Nassau street, N. Y., is now used by the health departments of most of the large cities.

ANGIONEUROTIC EDEMA OF THE TONGUE.

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CROMWELL.

The tongue is a part of the body rarely subjected to the phenomenon of acute, transient and circumscribed swelling, most commonly called angioneurotic edema, The face, hands and feet are most frequently affected, and while the pharynx, with its adjacent mucous membrane spreading up to the nose and down to the larynx, is often involved, the tongue seems to escape. Elliot (1) reports a case of edema, in a man, forty-nine years old, which appeared first in the feet and later affected other parts of the body, notably the face, lips, tongue and throat. Urticarial lesions were associated with these symptoms. Other writers mention that the tongue is sometimes involved, but so far as I know no well-defined case has been reported except that of R. Lewis, Jr. (2). My own case will, therefore, be of interest, not only as being perhaps the second to be fully recorded, but also because it presented the unique characteristic of an edema limited to one side of the tongue.

Reference is made in medical literature to this peculiar type of swelling as early as 1827, but it was not until 1882 that Quincke (3) and his pupil, Dinkelacker (4), gave a systematic account of the disorder. Since then many cases have been reported, and the following list of synonyms will show how it has been regarded by different authors. It has been described under the heading of an acute circumscribed, acute idiopathic, acute non-inflammatory, wandering and transient edema, also periodic swelling and urticaria tuberosa, or giant swelling. The term, angioneurotic edema, seems to have found most favor with the majority of writers.

Among the predisposing causes, heredity, hysteric and neurasthenic conditions are the most important. Cases reported by Falcone (5), Strübing (6), and Osler (7), show clearly the effect of hereditary influence. Collins (8), in an excellent article on this subject in Dercum's text-book of Nervous Diseases, 1895, states that he does not consider hysteria to be a common basic accompaniment of this disorder.

Judging from the descriptions of patients by other observers I am inclined to question this assertion. The eight cases which have come under my own observation have all shown, to a greater or less degree, a hystero-neurasthenic foundation.

A variety of exciting causes has been mentioned, such as cold, gastric irritation, puberty, menstruation, menopause, trauma, fright, toxic influence, etc. The effect of cold is well illustrated by Starr's (9) case, and Börner (10) establishes beyond doubt that angioneurosis is very frequently associated with the menstrual and climacteric periods. Simon (11) cites instances of the effect of local irritation similar to that reported by Haynes (12) and this present case of my own in which substances introduced in the mouth, chemically or otherwise, irritate the lingual and buccal nerve filaments, exciting an angineurotic performance in some other part of the body.

Angioneurotic edema occurs at all ages and rather more frequently in females. The earliest case is that reported by Johnston (13) of an infant three months old which was subject to recurrent attacks of redness and swelling in hands and feet for a period of three months. The child was then free from this until its fifth year, when it was again attacked in the hands and afterward in the feet, tip of nose and ears. Küsner (14) reports the case of a female, aged sixty-eight years, and Strübling (6) that of a male seventy years old. These are the oldest cases on record. Seven of my own cases were females, and

all experienced this symptom in middle or early adult life.

The chief characteristics of this edema are that it develops suddenly, usually without known cause, reaching its maximum in one-half to two hours and then subsides, leaving very little or no trace of its former existence; the swelling may vary in color from pale white to dark red; it does not pit on pressure and there is no fever or inflammatory indication; there is seldom any positive pain connected with it but there is usually a feeling of tension resulting from the pronounced state of the localized congestion; often there is some gastric uneasiness associated with it, but as a rule no other definite constitutional symptoms. When the mucous membrane of the pharynx, larynx and stomach are affected, difficulty in breathing, swallowing and speaking is experienced and vomiting may result. Osler (7) mentions two cases and Krieger (15) reports one in which death occurred from angioneurosis of the larynx.

The majority of writers rely upon the teaching of Colnheim (16), Rogowicz (17) and subsequent investigators to explain the mechanism of angioneurotic edema.

Briefly stated, it is supposed that either the vaso-constrictors relax from their normal tonicity or there occurs a reflex excitation of the vaso-dilators whereby an increased blood-supply accumulates in the affected areas and as a result of this increased tension a transudate of blood-serum fills the subdermal tissues, producing the circumscribed swelling.

With this brief résumé of the main features of this disorder I will pass on to the consideration of the two cases reported by Lewis (2) and Haynes (12). The swelling of the tongue in Lewis' case occurred in two instances twelve hours after the application of chromic acid to granulations on the upper and posterior portions of the tympanic membrane. The tongue became so con-

gested that breathing was difficult; following this a circumscribed edema appeared over the right frontal eminence, over the balls of both thumbs, on the internal malleolus of the ankle-joint and ball of the right foot. In twenty-four hours after the application of the chromic acid all signs of the edema had disappeared. Lewis considers that the edema, so far as the tongue was concerned, arose from the irritation of the chorda tympani nerve in its passage through the ear. He explains the appearance of the tongue-edema twelve hours after the application as due to the slow penetration of the acid through the granulations to the nerve fibre.

Haynes' case is that of an infant nineteen months old of marked neuropathic ancestry; she had a rachitic head with congenital hemi-facial hypertrophy. The child was apparently normal for her age except for the peculiarity that whenever sweet or sour substances were taken in the mouth the flow of saliva increased and the larger side of her face became swollen and red. The edema subsided after the exciting cause was withdrawn. This phenomenon was also sometimes noticed to occur momentarily when she yawned or gaped. The tongue was not affected.

These two cases with my own can be conveniently grouped together for the reason that they supply data for speculation as to the function of the chorda tympani nerve and the mechanism of the angioneurotic process.

The case of unilateral angioneurotic edema of the tongue which I have to present came under observation in the summer of 1896. The patient was a school teacher, twenty-seven years old, female, single, and born in Connecticut. She was admitted to the Sanitorium under the diagnosis of simple neurasthenia with mild hysterical complications. Under the best treatment and routine hygienic living she gained steadily and at the time of the angioneurotic attack she was in a very satisfactory convalescent condition.

The day on which this attack occurred she was somewhat nervous and emotional but took her walk and ate dinner as usual. At the end of the meal while eating ice-cream and a macaroon cake she noticed a smarting sensation on the tongue. Almost immediately it began to swell and assume a purplish red color. This swelling was entirely limited to the left side of the organ and in less than half an hour it reached its height, almost filling the mouth and preventing talking and swallowing. As the swelling neared its climax the patient began to cough and difficnlty in breathing was experienced. The coughing and dyspnea increased and soon the left side of the neck showed external congestion. Before the dyspnea became greatest the left side of the nose began to swell and although limited to one side the patient could scarcely breathe through the unaffected nostril. At one point, when the pharynx, nose and larynx were nearly closed by the swelling, the difficulty in breathing was so great that fear of suffocation was seriously entertained. As is frequently seen, however, in semi-hysteric individuals, when it is expected that they will lose their self- control, they do not, bnt on the contrary will pass a great danger most calmly. Such was the case here and by simply being reassured that the swelling was not serious the patient endured the painful tension in the nose and throat and the extreme dyspnea with great composure. In half an hour the edema of the tongue began to subside and presently that of the nose and larynx followed suit and in one hour and a half there was no sign of the angioneurosis except a slight feeling of tenderness in the tongue and nose. Five minutes after the tongne began to be edematous the patient's head began to ache in the frontal region and palpitation of the heart was noticed. These were the only general symptoms experienced.

Examination immediately after the climax of the

edema was reached gave the following results: The smell was diminished in acuteness to aromatic oils and ammonia, alike in both right and left nostrils; taste likewise was abated to sugar, salt and acid, slightly more on the left than on the right side of the tongue; the esthesiometer revealed the tactile sensibility of the tongue to be on the right side 1 cm., and on the left, the affected side, 1.5 cm.; pain, sensitiveness to pin prick was slightly more acute on the left side; the tongue deviated to the right owing to the congested state of the left side. The eyes and pupils were not affected in any way and there were no other objective signs of disturbance in any part of the body.

It is very important to note that this attack occurred on the day on which the menses were due. The patient was, however, subject to some irregularity of this function and in this instance it did not take place until one week later. There was no previous history of the angioneurosis in the patient or her family.

A recent communication from the patient informs me that she has experienced subsequent attacks of the edema of the tongue following the eating of macaroons and certain kinds of candy. A series of experiments at present being carried on have revealed the fact that the candy which excites edema of the tongue is chiefly that which contains almonds, the same nut which is used in the manufacture of macaroons. After further investigation it will be in order at some future time to take up the consideration of the physiology of the chorda tympani and gustatory nerves in reference to the symptoms of angioneurosis of the tongue and adjacent regions.

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DISEASES OF THE TONSILS.

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It would seem an easy matter to cover the subject, Diseases of the Tonsils, when we read that the tonsil is the name given to a mass of lymphoid tissue found between the pillars of the fauces, and that the tonsil does not exist in the healthy throat; but a glance at my list of pathological conditions, common and rare, which have been noted by numerous observers, will demonstrate that the subject is one which, though short in name, covers a great variety of disorders, as witness the following table:

- **INFLAMMATORY**
  - Acute
    - Follicular Tonsillitis
    - Parenchymatous Tonsillitis
    - Ulcerative Tonsillitis
  - Chronic
    - Follicular Tonsillitis, or Hypertrophic
    - Hyperplastic Tonsillitis, or Fibrous
    - Atrophic Tonsillitis
- **PARASITIC**
  - Mycosis
  - Angina Oidica
  - Actinomycosis
  - Tricocephali
  - Hydatids
- **SPECIFIC**
  - Diphtheria
  - Syphilis
    - Chancre
    - Erythema and Mucous Patch
    - Gumma
  - Tuberculosis
    - Primary
    - Secondary
- **CONSTITUTIONAL**
  - Scorbutus
  - Syphilitic
  - Tubercular
- **IRRUPTIVE**
  - Herpes
  - Varicella
- **MISCELLANEOUS**
  - Concretions
  - Gangrene
  - Pneumococcal Angina
  - Coli-Bacillary Tonsillitis
  - Hemorrhagic Tonsillitis
  - Foreign Bodies
  - Menstrual Anginas
  - Dermoid
- **NEW GROWTHS**
  - Benign
    - Polypus
    - Fibroma
    - Papilloma
    - Lymphangioma
    - Lipoma
    - Lymph Adenoma
    - Fibro-Chondroma
  - Malignant
    - Sarcoma
    - Carcinoma
- **PERITONSILLAR**
  - Acute Suppurative Tonsillitis, Quinsy or Peritonsillar Abscess
  - Chronic Abscess

I shall, however, limit myself to a few of the more common diseases of the tonsil, leaving the remaining diseases on the list as reminders to those who may be interested in any tonsillar disorder which I have not touched upon, and first, the inflammatory affections of the tonsils.

ACUTE FOLLICULAR TONSILLITIS OR ACUTE LACUNAR TONSILLITIS.

Acute follicular tonsillitis presents to us many interesting and instructive points. It is an acute disease, it is common, every practitioner sees it, and the many annoying, and at times almost agonizing, symptoms may be abated if not always entirely relieved. It is, furthermore, of interest, as it is a disease which is not infrequently diagnosed as diphtheria and treated accordingly. The portions of the tonsil which seem to be especially invaded are its crypts or lacunae, with a fibrinous exudation which appears at the mouths of the lacunae and spreads more or less extensively over the surface of the tonsil.

The symptoms of this disease are very familiar—a sudden invasion, with high temperature, intense cephalalgia and rachialgia, and pain in the legs—with or without a chill, sometimes nausea, a quick occurrence of painful and perhaps difficult deglutition. Oral inspection will demonstrate the presence of "spots" on the tonsils, usually quite white in appearance and occurring either as small round spots of exudation, discrete at the mouths of the lacunae, or there may be a blending of these areas of exudation until there may be quite a large patch or several large patches on one or both tonsils. Both tonsils are usually invaded but sometimes the soreness and exudation of one tonsil may appear only some hours after they have shown themselves on the other tonsil. The tonsils themselves are red and this redness may and

often does involve the neighboring parts of the throat and there may even be a feeling of stiffness at the angles of the jaws and there is an abnormal amount of mucus present. After a few hours the constitutional symptoms usually subside in a large measure while the soreness and exudation in the throat persist for several days and gradually disappear, leaving the patient frequently weak and debilitated.

The etiology of follicular tonsillitis is not simple; we may have a number of predisposing elements entering into the causation. [1]Heredity seems to be in many an important factor among the predisposing causes. Youth is another, most of the cases occurring between the ages of fifteen and twenty-five years. Hypertrophy of the tonsil is a very important predisposing cause of follicular tonsillitis. The many cases occurring, during or following attacks of la grippe, would be indicative that the tonsil had been in a previous chronic inflammatory condition and that the acute affection was easily lighted up by the specific poison of the influenza. Mental depression, anxiety, over-work, rheumatism and gout have all been charged with guilt as being causative of this disease.

As of many other acute affections, exposure to wet and cold is generally considered, by the laity at least, as the most common immediate cause of follicular tonsilitis, but it is, I think, generally believed by the doctors that unless there had been a predisposing diseased condition of the tonsils, mere exposure to cold would hardly produce the disease in question.

The question of infection in cases of acute follicular tonsillitis has been often discussed pro and con. The fact that staphylococci and streptococci are frequently present, I might say almost invariably, and that so many cases point directly to exposure, make it almost imperative for us to consider a large proportion of the cases

as infectious. [2]There is in the health-officer's report of the Finchley Urban Sanitary District for 1894, an account of an outbreak of infectious follicular tonsillitis (not diphtheria) which was traced to milk from cows with ulcerated teats and chronic abscess of the udder, their milk being used in ninety-one per cent. of the infected houses. Fraenkel[3] testified as to the infectious nature of follicular tonsillitis before the British Medical Association, July, 1890, showing its similarity to an infectious fever, as to onset, course and crises and the splenic enlargement which he says accompanies it. At a meeting of the Belgium Society of Otology and Laryngology, June 7th, 1896, Broeckhaert, in speaking of acute lacunar tonsillitis, says that it may give rise to nephritis, to swelling of the glands of the neck, to peritonsillar phlegmon, to acute purulent otitis media, to articular affections and even (Joal), to orchitis and ovaritis and so we might go on, getting testimony proving the infectious character of the disease, whether directly from our neighbors or due to unsanitary surroundings.

ACUTE PARENCHYMATOUS TONSILLITIS

or what is called by Bosworth[4] a sub-acute tonsillitis, is a catarrhal inflammation of the parenchyma of the tonsil. It is not contagious, and begins suddenly and the constitutional symptoms are similar to those of follicular or croupous tonsillitis; a more or less pronounced chill, usually only a feeling of chilliness with headache and backache, and immediate rise in temperature with pain and soreness in the tonsils. The tongue is furred and continues so through the course of the disease, the bowels are usually constipated, there is pain at the angles of the jaws and deglutition is painful and difficult. The etiology is, exposure to cold and wet, a predisposing chronic inflammation of the tonsils. The rheumatic diathesis is supposed to play an important part in many cases and a debilitated state of the system is also in many cases

largely responsible for the attack. The disease proceeds with more or less virulence for several days and recovery gradually ensues, the inflammation running its course in from five to ten days.

ACUTE ULCERATIVE TONSILLITIS.

Though many times we have patients come to us and say, "Doctor, I have ulcers on my tonsils," it is, I am sure, very seldom that we have cases that are really ulcerative tonsillitis pure and simple, but these ulcers are usually due to loss of tissue in pathological changes in disease, such as syphilis, diphtheria, tuberculosis or scurvy. The most satisfactory description of this disease, which we have perhaps all of us seen, is that given in a paper read before the French Society of Otology, Rhinology and Laryngology, May 16th, 1895, by Mour[5] and which is well illustrated by a succession of cases.

These occur in young adult life, the lesions are usually unilateral, and there is not apt to be a repetition of the disease, one attack not predisposing to successive ones as is so apt to be the case in acute follicular tonsillitis. The course of the disease as described by Mour is as follows: The patient has a slight malaise and there is a unilateral slight dysphagia. Examination shows a greyish ulceration, covered by a caseous magma which is easily removed so as to lay bare a sanious surface, mammilated, reddish and formed of small granulations. The borders of the ulcers are well marked, red and inflamed, without being very notably swollen and the rest of the tonsillar gland does not seem involved or to any great degree increased in size. The ulcers are of considerable size, more or less oval or rounded in form and fairly deep. The pillars are usually intact unless when the tonsil is hooded—that is to say, has adherent pillars. The course of the disease is rather short, the ulcerations usually healing with little other treatment

than cleanliness. The disease in question is supposed to be microbic in origin and the cicatrix remains indefinitely.

QUINSY: ACUTE SUPPURATIVE TONSILLITIS,

or as it usually occurs when there is a formation of pus, it is more properly called a peritonsillar abscess. The disease is more frequently unilateral, and the tissue most involved is the cellular tissue surrounding the tonsil, although the tonsil itself is somewhat swollen and tender. The invasion is here again abrupt and the symptoms at the onset will be but the repetition of those occurring in acute parenchymatous tonsillitis, but the severity of the disease is very marked from the first, the constitutional symptoms very severe, and the pain and tenderness in the throat excessive. The tongue is covered with a nasty coating, the breath is foul and the patient presents the appearance of a person who is very ill and suffering intensely. On looking at the throat, which is not always an easy procedure on account of the swelling, there is presented to view a picture as is ordinarily seen when the disease has been in progress a few hours, which is very typical. There is a one-sided tumefaction of the throat, the swelling usually most pronounced anterior to and above the tonsils in the soft plate, the tonsil itself is pushed downward and backwards and there is a vast amount of stringy mucus coming through the narrow opening left between the two tonsils, and which the patient is constantly obliged to make efforts to rid himself of, as deglutition is so intensely painful. This swelling gradually increases with a corresponding increase of the patient's sufferings both on account of the tenseness of the tissues and the not infrequently great difficulty in breathing, due to the lack of room for the air to pass and the vast amount of secretion which is constantly present and is with such difficulty removed from

the throat. After a longer or shorter length of time, usually in from two to seven days, the abscess which has been forming, breaks and discharges with immediate and marked relief to the patient, or instead of pus formation after a painful duration of swelling and tenderness, these together with the other symptoms gradually diminish and resolution ensues. In either case the patient is left weak and prostrated for a number of days. There is another class of cases in which the abscess is in the posterior pillar of the fauces and these are the more troublesome cases to treat; they are longer in pointing and the dysphagia and dyspnea are more pronounced and the cases are not so easy to diagnose.

Etiology: Previous attacks of quinsy, enlarged and diseased tonsils, especially with those with adherent pillars of the fauces, a debilitated condition of the system and the rheumatic diathesis.

Chronic Tonsillitis or Chronic Hypertrophic Amygdalitis.

There are found two varieties of enlarged tonsils, one in which the lymphoid tissue is chronically inflamed, and the lacunae are more or less blocked up with a cheesy deposit, consisting of the broken-down secretion of the tonsil, which distends the lacunae and causes the dotted appearance which we see in tonsils with this kind of hypertrophy. A probe passes readily into the mouths of these crypts and the tonsil at times is almost honeycombed. This we call chronic follicular tonsillitis. The other variety is that in which the connective tissue of the tonsil is increased and encroaches on the lymphoid tissue, and compresses it, causing the tonsil to be hard and usually in this variety of chronic hypertrophic amygdalitis which is a hyperplasia, the tonsil is not so large as in the true hypertrophy, and presents an appear-

ance not so ragged or prominent. This is called chronic hyperplastic tonsillitis or fibrous tonsillitis.

Etiology: Repeated attacks of tonsillitis, lymphatism,[6] heredity, the exanthemata, and syphilis in a very limited number of cases.

The repeated attacks of tonsillitis do not entirely subside, and each attack leaves behind it a limited amount of hypertrophy, resulting eventually in the hypertrophied or hyperplastic tonsil as we see it. The lymphatic habit or diathesis is quite prominent in childhood and is responsible for a large proportion of enlarged tonsils. Heredity cannot be entirely overlooked as we often see several cases of tonsillar hypertrophy in the same family and we can obtain the history of similar conditions of hypertrophy in parents and grandparents. The exanthemata especially scarlatina and diphtheria not frequently, leave behind them enlarged tonsils, and syphilis, especially the initial lesion, no doubt stands in a causative relation to hypertrophied tonsils.

SYMPTOMS, SUBJECTIVE AND OBJECTIVE.

Subjective: Restlessness at night, snoring, anorexia, general apathy, difficulty in deglutition, difficulty in breathing, especially marked on exertion, and mouth-breathing almost at all times, cough and reflex asthma. Deafness has been stated to be caused by enlarged tonsils, but the almost constant concurrence of adenoid tissue in the pharyngeal vault in these cases of deafness will not allow us to determine with certainty how much harm we are to attribute to enlarged faucial tonsil and how much to hypertrophied pharyngeal tonsil, or Luschka's gland, and finally, the peculiar voice of one whose mouth is full of tonsil with often a foul-smelling breath. Inspection will show on depressing the tongue, one or both tonsils in a greater or less degree of hyperplasia or true hypertrophy.

In the cases of hypertrophy called Chronic Follicular Tonsillitis the tonsil is large, uneven in appearance and one or more of the tonsillar crypts are filled with plugs of secretion, white or yellowish-white and consisting of "leucocytes," epithelium chalk, mucus and the various bacteria, etc., which infest the mouth," which if not apparent on inspection can be brought to view by expression.

Chronic Athropic Tonsillitis is hardly properly so named as it is merely a variety of chronic follicular tonsillitis in which the tonsil is small but presents symptoms due to distension of one or more crypts with the material spoken of before. The other small tonsils give no trouble and the possessor is to be congratulated in that he is fortunate enough to have them.

Of the parasitic diseases of the tonsils the most common is mycosis, though this disease is quite infrequently observed. It consists of a fungoid growth, occupying the lacunae and surfaces of the tonsil, which is made up of the spores of the vegetable parasite, mycosis leptothrix, imbedded in a mass of amorphous granules. This condition is easily recognized by the time the patient comes under observation, as the symptoms at first are so slight that nothing is supposed to be the matter; indeed the affection is most often discovered by accident and the first inkling that the patient has that this condition obtains is finding a white patch on one or both sides of the throat.

Etiology: The cause of this affection is the leptothrix which has come in contact with the tonsil and finding it a favorable soil begins to grow, which it does very rapidly by fission. The source of the parasite is said most frequently to be masses of decomposition between the teeth.

The subjective symptoms are at first nil, and usually the patient is not conscious of any trouble until the

growth is of enough magnitude to be mechanically annoying or he discovers it, as said before, by accident. Malaise is sometimes present and when the growth extends to the pharyngeal walls or tongue, there may be an initiative cough. The diagnosis is usually easily made without the aid of the microscope, the only disease with which it might be confounded being follicular tonsillitis, acute or chronic, or diphtheria; and the absence of pain, tenderness and constitutional symptoms which occur in the latter affections will render a mistaken diagnosis practically impossible. The patches of mycosis may be small and isolated or may cover one or both tonsils and may extend to the lymphoid tissue at the base of the tongue or to the pharyngeal walls.

The color is white and there is no bad odor to the breath due to the growth. The affection seems to have no special effect on the general health. The course of the disease is apt to be protracted through months and years unless properly treated, though a spontaneous cure may result but for what cause is not known.

SYPHILIS.

The syphilitic lesions are the chancre, erythema and mucous patch and the gumma. Chancre of the tonsil is considered a rather rare affection, but in sixty-eight cases of chancre of the fauces collected by Shadek and quoted by Bosworth, in thirty-four the lesion was situated on the tonsil. Cases have been reported by a number of observers and Buckly[8] states that in two thousand cases of syphilis he found fifteen extra-genital chancres on the tonsil, but believes that they occur in a much larger proportion of cases. The symptoms are first a stinging pain in the tonsil with more or less dysphagia and a soreness which is persistent and later a stony hardness which many patients speak of themselves.

Examination shows, usually, a slight ulceration which

is flush with the surface of the tonsil, and palpation discovers the induration which is so characteristic of chancre in other situations. The lesion is unilateral and accompanied by a unilateral cervical bubo, which may be intensely tender but does not suppurate. The sources of this extra-genital lesion are very numerous, such as kissing, tasting the milk through the nipple of a nursing-bottle of a syphilitic child, smoking the pipe of an infected person and undoubtedly in some cases to impure practices. The diagnosis is usually easy, and if not made at first is cleared up by the subsequent history of the case. A very interesting case has just been reported by Thorner, where the wife had contracted the initial lesion on the tonsil from her husband, who had indulged in an act of sexual perversion. Syphilitic erythema of the tonsil is especially noted for its dark red color and a subsequent desquamation. The mucous patch presents the usual appearance as when observed on mucous membranes in other situations, and is here, as elsewhere, extremely contagious. Gummata of the tonsil present three conditions, which may be the hard mass itself, the superficial ulcer which is the breaking down of an early-appearing small gumma and the deep ulceration of a large gumma or the coalescence of two or more which have become softened and the resulting ulcerations have become united in one common sore. These various lesions practically correspond as to their period of appearance with similar manifestation in other parts of the body.

Tuberculosis of the tonsil may be primary or secondary to pulmonary tuberculosis, the latter being by far the most frequent and in many cases the pulmonary lesion is concomitant or is detected so soon afterward that it is often a question which organ should be considered as taking the precedence.

These cases of tonsillar tuberculosis complicating the

pulmonary trouble are apt to be quite rapidly fatal. The inspection of the tonsil shows first possibly a simple hypertrophy, then an ulceration which has an uneven ovoid, pale granulating surface, shallow and covered with a yellowish-grey mucus.[9] Any doubt as to the character of the trouble may of course be solved by means of a microscopic examination.

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ACOUMETERS AND THEIR DIAGNOSTIC VALUE IN EAR DISEASES.

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In this paper I wish to speak chiefly of the tuning-fork and some of its uses in the hands of otologists. The watch, the use of the loud and whispered speech-words and certain acoumeters for testing quantitative and qualitative hearing have never proven satisfactory. For all time the watch has been an instrument for testing the acuteness of the hearing organ and its advance under treatment, regardless of its imperfections. The sound-conducting apparatus does not receive the ticking of a watch as a noise but as a sound with a distinct pitch. This pitch varies in successive trials to a degree which often misleads the careful observer in his judgment of the tone-condition of the hearing organ and its progress during treatment. Not only this, but also the inaccuracies in the position of the watch and its relation to the meatus on successive trials are discrepancies which are difficult to overcome by specialists and in recent years the instrument for these and other reasons has been of little use for exact testing.

In 1871 Oscar Wolz established the key-note for the different sounds of speech, the distance at which certain loud and whispered speech-words could be distinguished, their application for testing quantitative and qualitative hearing and their diagnostic significance. This method, though serving to this day as the foundation for testing with speech-words, has proven in many ways deficient. The discrepancies in the timbre of the voice upon successive trials, the difficulty in giving to the voice the same

volume and strength on different days, the uncertainty of distance and position, are imperfections which preclude exactness, but the method, nevertheless, gives results of such great relative value that its use is certainly important if not indispensable. Soon after Oscar Wolf's investigations Burckhardt-Merian brought into use Galton's cylinder-whistle for the perception of high tones. This instrument, with a range of more than the three uppermost octaves, producing eighty-four thousand vibrations per second, is of great practical use for testing the perception of the highest part of the sound-scale, but only in bilateral disturbances to nerve and sound-condition. The normal ear will borrow the sound even under the most careful efforts to prevent it, and this renders the test uncertain and unreliable. This same may be said of Köwing's series of cylinders by means of which the uppermost limit of sound-perception can be attained.

Other acoumeters may be mentioned which have been of great practical use and it may be said that no subject has received in recent years more attention from ear specialists than the invention, application and perfection of acoumeters for aiding otologists to detect the nature of an ear disorder, the extent of the affection, the seat of the disturbance along the course of the sound-conducting apparatus and of especial importance what kind of sound relative to pitch quality and quantity certain forms of ear disorder will accept to the exclusion of other sounds—whether of greater or less intensity and volume and what such phenomena indicate and mean relative to etiology, treatment and prognosis.

Otologists, recognizing the practical and scientific application of the tuning-fork in affections of the hearing organ, have labored to improve its uses and with good results. The importance of this instrument is not to be found so much in testing acuteness of the hearing organ as in locating the disturbance and in assisting

in the differential diagnosis of an ear affection where subjective and objective examinations give negative results. With it we are often able to locate a disease, whether the pathological change has its seat in the sound-conducting or nerve apparatus, to note the extent and course of the disturbance and the result of treatment.

Otologists generally equip themselves with a complete octavo series from $C = 64$ to $C^7 = 16384$, in all nine tuning-forks, and also a Galton whistle for testing the uppermost part of the scale. The possession of the high and low-toned tuning-forks is of great value to the specialist in determining the differential diagnosis of middle-ear affections and disturbances to the labyrinth. Adam Politzer first demonstrated that in middle-ear affections high tones are better heard than low tones. This discovery enabled Lucae to establish the diagnostic value of testing with low-toned forks. He found that in middle-ear affections, where the perception for speech-words was very much reduced, low-toned tuning-forks could hardly be heard. In affections of the labyrinth the contrary was found. Here the low-toned tuning-forks were clearly heard although the hearing power for speech-words was very much decreased. It is an interesting fact that frequently in unilateral middle-ear affections the sound of the tuning-fork of the same pitch is nearly a whole tone higher in the diseased than in the normal ear—a phenomenon not met with in diseases of the labyrinth. Although the failure of the perception of the lower tones is of very great importance in the diagnosis of middle-ear affections, it is only to be counted of value in connection with other tests and the general examination of the patient. I have found this test to fail utterly in marked auditory nerve disorder, while the Galton whistle was clearly heard—that is, the perception of sounds higher up in the scale. It has been

demonstrated by Weber that in unilateral middle-ear disease or in bilateral disturbance where one ear is more affected than the other, a vibratory tuning-fork placed upon the median line of the skull will be heard loudest and longest in the diseased ear. On the other hand, in diseases of the labyrinth with no affection of the middle-ear, the vibrations will be heard loudest and longest in the normal ear. In making this test the low-toned fork should be used. C.^{2}-512 is the best, as it is safest from over-tones and the prongs are not long enough to cause concussion with consequent mixing of the sound sensation. Should the fork on the vertex fail to give positive results it should be tried on the lower jaw or against the incisor teeth.

Of great importance is Renne's test in middle-ear affections with considerable deafness. Renne demonstrated the diagnostic value of his bone and air conduction test. He showed that in the normal ear the tuning-fork was heard much longer when held before the ear than when the fork was placed against the mastoid bone. He proved that the contrary was true in middle-ear affections, the tuning-fork being much longer heard in the affected ear with the fork on the mastoid. The former test is known to otologists as the positive Renne, the latter as the negative. The test is of great importance in middle-ear affections of long-standing with reduced hearing where the auditory nerve has been demonstrated to be in a healthy condition. The same precaution in the use of the low-toned forks apply to Renne as well as that spoken of in Weber's test. Both tests should be conducted along with the general examination of the parts and in connection with tests for the perception of high and low tones. The unique application of the low-toned forks for assisting in the diagnosis of an impermeable eustachian tube has resulted from the labors of Adam Politzer. He found that in normal ears the sound

of the vibrating fork held before the nostril will be more loudly heard in both ears during the act of swallowing. In unilateral middle-ear affections complicating impermeability of the eustachian tube the sound is heard generally only in the normal ear and little or not at all in the ear with closed eustachian tube. If, however, the tube be made permeable by means of the catheter or the Politzer method, the sound is heard even louder in the diseased than in the normal ear. This method of testing may be made use of frequently in assisting the diagnosis of middle-ear affections where the eustachian tube is not closed. When, therefore, in unilateral middle-ear affections the tuning-fork before the nostril is heard louder in the diseased than in the normal ear during the act of swallowing, it is highly probable that the tube of the affected ear is open. Should, however, the pathological change have its seat in the labyrinth the test will give negative results whether the tube of the affected ear be open or not.

THERAPEUTICAL EFFECTS OF ELECTRICITY OF HIGH TENSION.

W F. Browne, M.D.,

MIDDLE HADDAM.

It gives me pleasure to bring your attention to one of the therapeutic agencies coming more and more into vogue at the present time, which is destined to occupy a large field in therapeutics as its power for good becomes more understood and appreciated. I refer to static electricity, electricity at high tension. This is no new form of electricity, neither has it any properties which were not well known a hundred years ago, but the attention of medical men has been called to it anew by perfection in minor details of the apparatus, made imperative by the discovery that this is the best form of electrical energy to excite Crooke's tubes for the production of X Rays.

As one perseveres in the use of the static machine it becomes more and more manageable, and as one becomes more expert in recognizing the pathological conditions amenable to its influence, more satisfaction is derived from its use.

It produces stimulating effects and sedative effects, it will increase or diminish the flow of blood in a part according to the method of application. I have demonstrated this by placing a small glass tube filled with colored water between the two poles of the machine and noting that the fluid is always propelled from the tube, in the same direction in which the current of electricity is flowing.

Martin, Monnell-Williams, Jacobi, Cleves and many others are using this therapeutic agent, and have grown enthusiastic in their reports of what they have accom-

plished for the relief and cure of their patients, and the more familiar I become with it, the more I am convinced that their reports are not exaggerated. They claim improvement in circulation and nutrition, better sleep, more appetite, greater vitality, relief of pain, restoration of lost or impaired functions to their normal condition, and not by a long and tedious process, but by one agreeable and expeditious.

When a patient is placed in the insulated chair, given one of the poles, and the machine is gradually started, no sensation is felt at first, and for a minute or two the patient is not aware of receiving the current. Then a gentle breeze is felt blowing about the head, and a sensation as though the hair was rising, which really happens. As the patient becomes charged to a sufficient tension the electricity tends to escape into the atmosphere, and the hair follows the lines of force.

The effect can be increased by connecting a chain to the other pole and suspending it near any part of the patient, the effect increasing as it approaches the surface. It can be varied from the mildest kind of influence to the most powerful effect it may be desirable to produce, and perfectly under the control of the operator. We may use a constant current like a galvanic current or an interrupted current, either primary or secondary as with a faradic battery, and these varieties of current from the static-machine may be used for all the purposes that the galvanic or faradic batteries are employed, but the static-machine, giving an electricity of higher tension, produces its effect much more rapidly and with less inconvenience to the patient than either of the other varieties, because it is not necessary for the patient to disrobe to have the electricity applied to any part of the body it may be desirable to affect. If the current is passed in one direction it increases the amount of blood in the part to which it is applied, and diminishes the amount of blood

when passed in an opposite direction; thus when the current enters the body through the head a congestive headache will be relieved, and when it leaves the body through the head an anemic headache is relieved. The effect is very rapidly produced in six to ten minutes, and lasts for a number of hours, the effect of each application lasting longer than the preceding, until soon the normal condition of the circulation is established.

There seems to be great uniformity of opinion among users of static electricity as to its effect on the human body. From 1777-1781 Tiberius Cavallo, F. R. S., ten years before the discovery by Galvani of a current with chemical and electrolytic properties, writes: "The effects of electricity on the human body are a quickening of the pulse, an increase of the glandular secretions and insensible perspiration, and often a restoration of these functions where they are entirely obstructed. Electricity not only promotes any discharge or circulation of fluids but rather asserts the 'vis vitae' or that innate endeavor by which nature tends to restore the sound state."

In 1871, one hundred years after, a French writer, Dr. A. Arthius, states: "That it induces an acceleration of the pulse, is singularly calmant, eases the respiration, develops animal heat, augments cutaneous transpiration, makes more active the urinary secretions, disperses nervous irritation, and gives tone to the whole organism. It is the great dispenser of equilibrium to the disturbed balance of the system, it increases the vital force and augments the energy of absorption. In a word, it excites and facilitates the play of all the functions. It is regarded by those who have used it as the great regulator of menstruation. The well-being which it instantaneously produces causes those who have once experienced it to wish for a repetition of its beneficial effects."

One hundred and forty years ago the Abbé Menon discovered that the human body loses weight by electri-

fication for five or six hours. He attributed the loss to increased insensible perspiration and tissue changes.

Modern investigation shows that static electricity increases the excretions of urea and lessens the uric acid in the system by promoting oxidation. It increases both the appetite and weight when the latter has been reduced by impaired nutrition. It lowers the blood pressure. In ten or fifteen minutes of general electrization a gentle perspiration ensues, accompanied by a feeling of well-being. If too slow the heart-beats may be increased or if too fast, reduced in number. It tends to regulate functionally deranged temperature. Many neurotic, neurasthenic and melancholic conditions are found to have sub-normal temperature before electrification. This condition it adjusts to normal—to the general improvement of the patient.

Munnell of the Brooklyn Postgraduate School of Clinical Electrotherapeutics, in 1897 writes: "The power of static electricity seems to be chiefly manifested as a regulator of functions. It tends to adjust to normal action, the heart, respiration, pulse, temperature, oxidation, secretions, excretions, nervous irritability and sleep. It increases metabolism so a person can absorb more oxygen and thus mere improvement in nutrition, is a vast power for good, and alone suffices to correct many morbid states, as gout, rheumatism, neurasthenia, neuralgia, anemia and various symptomatic derangements. The spark of its powerful action sets up a molecular change and acts as a stimulating massage. It thus affects the nutrition of a part, dispensing exudating material and promoting absorption.

Sedative and stimulating effects are equally under the operator's control and may be obtained at will. Many varieties of pain are promptly relieved by some form of static electricity, and if not due to an incurable and

persistent cause it is well-nigh certain that the pain-killing property of this agent will give permanent relief if the treatment is persisted in."

An abstract of the report of the Committee on Standard Electrostatic or Influence Machines, presented to the Convention of the American Electrotherapeutic Association and published in the Times and Register, December 29, 1894, states "That static electricity causes contraction of the protoplasm, both animal and vegetable, it excites nerve fibres, nerve centers and nerve cells to functional action and to produce their separate effects, motor, sensory, special sense, secretory, sympathetic, vasomotor, etc. It has a mechanical action and can be made to transfer metals and convey medicaments into the tissues. It is both a cutaneous sedative and a counter-irritant. In cord diseases it affords relief from various forms of pain even in advance of lesions, and in muscular rheumatism, chronic synovitis and chorea it is invaluable."

This report further coincides with opinions of Monnell which I have just read. Thus it is seen that there is great uniformity of opinion among the workers with static electricity during the past one hundred and fifty years, each later writer accepting and enlarging upon the observations of others, and it seems strange that this form of application should have been almost lost sight of for long periods. But this is readily explained when it is known that the generation of this electricity was a very uncertain quantity, the apparatus being almost or entirely useless in warm weather, when the atmosphere was highly charged with moisture. It is only in recent years that the apparatus has been perfected so as to be fairly sure to work at all seasons of the year, and even now it requires care to produce only the effects which are desired in a given case.

I have been using the static-machine some during the

past twenty months, both for X Ray and therapeutic properties, and have been favorably impressed with its possibilities and have succeeded in duplicating many of the results obtained by others and reported in various journals and monographs, and will take this opportunity of reporting a few of the cases, notes of which have been taken.

First, I will mention a case illustrating the effect of static-electricity in controlling the action of the heart.

No. 1. This woman had at various times for several years suffered from acute attacks of parenchymatous nephritis associated with dyspnea and palpitation and edema. These attacks had been relieved a number of times during the past three years with digitalis, diuretics, etc. May ten, 1897, she came to my office saying she had not had an attack of dyspnea for a year, but all that day she had suffered severely with dyspnea and the urine had been scanty for a week or more. Her pulse was one hundred and eight. She was given positive insulation and one-one hundredth of a grain of nitro-glycerine, and within ten minutes she was breathing easily and her pulse had fallen to seventy-six. Her symptoms being relieved she went home without further treatment. Nine days later she was seen and reported that she had been free from symptoms since the first treatment and she has remained so ever since.

Perhaps you may think the one tablet of nitro-glycerine was responsible for her rapid relief from dyspnea, but it had never acted thus promptly in any of her previous attacks.

No. 2. A case of nervous prostration, also illustrating the effect of static electricity in controlling the pulse. A school-girl seventeen years of age, tall and slender, had been obliged to leave school on account of increasing debility, nervousness and headaches. She had been under several plans of treatment without much benefit,

About January, 1897, she at once began to improve with static insulatiou and was eager to continue the treatment. After fifteen applications at intervals of two or three days, all symptoms had left her and she returned to school, well and better than ever before.

Four months later, about April, 1897, she contracted a severe cold, probably la grippe, from which she was very slow in recovering. Her mother stated that she frequently wished to take the electricity again. When she came in May she had the appearance of having had a severe illness, pale, had lost flesh, distressing cough, dyspnea, pulse one hundred and thirty-two, temperature 98.6° It was a severe tax on her strength to walk to the office. During the electric treatment her pulse fell from one hundred and thirty-two to one hundred and sixteen and twenty minutes later to one hundred. She received treatment twice a week for two months, showing marked improvement each time. In addition to relief from symptoms her hair grew longer and thicker. She has completely recovered, which was remarkable, as she looked consumptive.

No. 3. A nurse, who could not continue her work on account of extreme nervousness and increasing debility, with loss of appetite and sleep, came last May for treatment. She was hysterical at the thought of taking electricity, but after two or three applications was decidedly better; appetite improved, pain in head and back relieved and nerves much stronger. After six or eight treatments she completely recovered and has continued nursing until the present time, eleven months later.

No. 4. Illustrating the effect of the direction of the current on the head.

October twenty-two, 1897, a girl of sixteen came, having otitis media, interna and externa, retro-pharyngeal catarrh, face flushed, eye-strain, and extreme nervous-

ness. Probably a congestion of the vessels of the head existed. She was given a positive insulation, i. e., the electricity entered the hand and passed out through the head. She seemed very suspicious of harm, and cross and irritable. This condition was changed, her face assuming a pleasant expression, by reversing the current, so it entered at the head and left the body at the hand.

No. 5. This patient had pneumonia three years ago and has since been troubled with intercostal neuralgia on the left side. She came in May, 1897, and received five static applications and has remained free from that pain since. While receiving the treatment her general health improved.

No. 6. A woman of forty-five, has had pains of a rheumatic nature in shoulders, back and chest. She had one static application, and four months later came for another for other pains and as a general tonic, as the other did her so much good. The rheumatic pains had not returned after the first treatment and she said she had not been as free from rheumatism for years.

No. 7. Have had four cases of spermatorrhea in young men from eighteen to twenty years of age, all of whom have been relieved in three or four treatments at intervals of two or three days, and have remained so, great improvement in their mental condition, strength and appetite resulting at the same time.

No. 8. There have been three cases illustrating the restoration of the "vis vitae" after typhoid fever. No. 1 came in February, 1897, having had typhoid fever and one relapse six months before. The fever left him debilitated, listless, with no strength or ambition. He had taken tonics and restoratives all that time with no apparent benefit. There was a complete change for the better after one static application and after three treatments he went into business and has continued well.

No. 2. A man of thirty-five, grocer, in July, 1897, had dysentery for one week, followed by a stoppage for five days, then typhoid fever for twenty-eight days. His convalescence was slow, but he went to business November six, and worked until December twenty-five, when he had to give up on account of soreness and throbbing in the right iliac region. This continued for ten days, after which there was a discharge of pus from the rectum. He has not been able to work since, appetite variable, bowels constipated, sleep poor, no ambition and looking very feeble. He stayed at my house three days, during which time he received five treatments. He slept well after the first application, and his appetite and ambition returned so much that he walked about the city nearly all the third day. He returned to his home in another State, intending to return in two weeks, but at the end of that time went to work. He continues to improve.

No. 3 was referred to me by Dr. Tingley, for static treatment. This man had typhoid fever with relapses in October and November, 1897, and convalescence was very slow. In December, 1897, he received three treatments and went for a visit, considerably improved. He was sent to me in February by Dr. Tingley, and had four treatments in eight days, when he ceased coming. March twentieth he informed me that he thinks the treatment benefitted him, but he ought to have had more.

I have had two cases of acute coryza in which there had been profuse discharge from the nose for twelve hours in one case, twenty-four hours in the other. Each was relieved by five minutes of application and the trouble did not return, although one patient went out immediately into the damp air.

One case of coccygodynia came recently. The patient, a girl of seventeen, while skating last November, fell heavily on the ice. A few days later she began to notice pain in the region of the coccyx, with increasing

trouble in rising after sitting, tenderness on pressure. These symptoms all became very annoying.

March twenty-eight she was given a static treatment, the positive pole directed to the painful part for ten minutes. On rising from the chair there was an absence of the usual difficulty. The next day there was some tenderness, but an absence of pain since the previous application. She was given another treatment of the same kind, and advised to return in three days if she had any further trouble. She has not since returned, and has remained free from symptoms since.

THE NEW WIDAL REACTION FOR TYPHOID FEVER, WITH REPORT OF CASES.

PHILIP D. BUNCE, M.D.,

HARTFORD.

Somewhat over a year ago we began to read short paragraphs in various journals in regard to a sure test for typhoid fever in the early stages. This must have interested most of us to some extent; for all who treat such diseases must acknowledge that they have had cases where it was all-important to make an early diagnosis or in fact a true diagnosis at any time in the course of the disease.

It is of little importance or interest to the members of this Society whether the Chinese knew all about this test centuries ago, or whether some Russian Vitch or German Von made the discovery independently at some previous time. Widal, a Frenchman, was the first active agent in applying this test in typhoid fever for practical clinical purposes. He read a paper on this subject before a French medical society in June, 1896. His technique has been improved upon and more accurate methods will probably be discovered in the course of time. He made some rather extravagant claims, some of which have been already disproved. The memory of Koch's tuberculin will make most of us skeptical in regard to anything like a miracle in medicine.

On looking over the literature of this subject it is surprising how many methods of applying the test are in use. What one observer regards as absolutely necessary for good results, another cares little about.

The first reporters in this country, in their haste to

appear in print, made great claims for the test. Some went so far as to say that without a single exception the reaction could always be obtained any time in the first week and under no circumstances could any other disease give rise to the reaction. It was even said that the test was so simple that anybody could perform it satisfactorily without the aid of a microscope, although of course the microscope might be of valuable assistance.

The subject is still fairly new and further experiments are necessary to determine the value of the test. But we are prepared to say that like everything human it has its defects and is not so absolutely perfect as the first observers led us to expect.

As I have said the technique varies somewhat in the different articles on the subject, and to make the matter clear, it is my purpose to give as simple an outline of the matter as possible, and not to give all the methods which are in use.

A pure culture of typhoid bacilli is procured from some established laboratory. The culture is best kept in agar tubes, and new tubes are inoculated every two weeks. From this agar culture bouillon cultures are made for use in the tests. The bouillon culture should be about fifteen hours old when the test is to be made. This necessitates the inoculation of a new bouillon tube daily if we plan to do regular work in this line.

The blood for the test is obtained by pricking the finger or lobe of the ear with a needle. The blood is smeared on an ordinary microscopical slide or on a piece of ordinary cardboard and allowed to dry. No sterilization of finger or cardboard is necessary.

To perform the test, moisten the blood with a small drop of water and deposit a portion of this solution in the middle of a cover-glass. Add to this about an equal portion from the pure culture of typhoid bacilli in the bouillon and mix. Invert this cover-glass over the hol-

low-ground slide and examine with the microscope; one-sixth objective will answer every purpose and an oil immersion is not needed. The reaction shows best if we use artificial light.

In looking through the microscope at a pure bouillon culture of typhoid bacilli, the bacilli will be seen in active movement all over the field, if the culture medium is good, and the culture is young. If, however, we add some serum from the blood of the suspected person to the pure culture as noted above, we may see changes.

If a typical reaction takes place we will see, the moment we get a focus on the typhoid bacilli, that they have either stopped all motion and are collected into little bunches in various parts of the field or else we will see this change come on within fifteen minutes. If there is no change in the activity of the bacilli and no grouping in fifteen minutes, we say there is no reaction.

The other method of performing the test is as follows: Under the strictest aseptic conditions blood is aspirated from a vein or as I learned in one case, over one pint of blood was withdrawn by aspiration directly from the heart of a typhoid patient, and kept in sterilized retainers. The serum is kept in sterilized test-tubes after separation from the clot. A small quantity of pure bouillon culture of typhoid bacilli is added to each tube. If the reaction is present the bacilli will sink to the bottom as sediment and the serum will remain clear. If the reaction is not present the bacilli will permeate the whole fluid and it will soon become turbid.

In the former case the bacilli are not deadly, for if the tubes are kept for two or three weeks they will begin to grow and the fluid becomes turbid and the tubes inoculated with the fluid will show growths.

The second method, owing to the quantity of blood required and the perfect degree of asepsis needed, is of

little use in the ordinary cases. The dried-blood method seems to give as good results and it can be applied in every case without exception.

The reaction may be present any time after the second day. I have never seen it before the sixth day. But who can say exactly when typhoid really begins? In some severe and typical cases it will not be present until after anybody can make a diagnosis from the clinical symptoms. In one hospital case, a negative reaction was obtained the day before death. On the other hand a reaction may be present before we are ready to pronounce it typhoid fever from a clinical standpoint.

The length of time it is present varies exceedingly. The most enthusiastic observers claimed it was always present after a person had typhoid, but this is not true. Sometimes it disappears with convalescence. It has been repeatedly observed six months or so later. Especially is this so in those cases of slow recovery with complications such as periostitis and local abscesses. In such cases typhoid bacilli may be found in pus and may well be considered the cause of the positive reaction. As an example of how persistent the reaction is, an experimenter took an old typhoid spleen which had been preserved in the museum of the College of Physicians and Surgeons of New York and found that liquid extracted from the specimen gave a typical reaction. The spleen had been in the museum a good many years.

In a collection of about one thousand cases of typhoid the reaction was present in ninety per cent. some time during the disease, and generally by the end of the second week.

In the Hospital laboratory it has been my aim to make the work as practical as possible and to supplement the other aids to diagnosis. With this end in view I have not examined the blood of every patient, but only

of those who were suspected of having typhoid and doubtful fever cases.

My list of thirty-six cases, compiled with the assistance of Dr. Rowley of the house staff of the hospital, includes hospital cases, those referred to me by other physicians, and cases in my own private practice, from the middle of August to the first day of October. Cases as a rule do not come into the hospital until the second week and in the other cases it was not possible for me to examine the blood as a rule before the tenth day. In one case the reaction was present in the first week and before the sure diagnosis had been made from the clinical evidence. This case, in a child, terminated fatally from hemorrhage.

Of the thirty-six cases, twenty-eight were typhoid beyond any doubt, and twenty-five of them gave a positive reaction. The others were malaria, pleurisy, phthisis and one of multiple abscess of the liver, which were negative as regards the reaction. In the case of abscess of the liver the blood was examined five times with negative result, except once the bacilli were motionless but did not form into groups at all. For a long time it was considered a sure case of typhoid, but the autopsy confirmed the reliability of the test.

Some of the cases were very interesting from the fact that they occurred in families. One member would sicken and have all the clinical symptoms of typhoid, including the serum reaction. Another would soon be taken sick and we were sure typhoid was present, but for several days the reaction was positively negative. On the other hand, one mother died of typhoid. Her child was brought in with a high fever, delirium, sordes on tongue, everybody said typhoid. Reaction was absolutely negative and the next day the temperature was normal. Quinine relieved every symptom.

In only a few of our cases did the grouping take place

instantly, but we had to wait some time before we were satisfied.

None of our cases gave the true reaction except the typhoid. Two cases reacted in a measure. In both the bacilli became entirely stationary, but did not form into groups even after waiting an hour. These two cases were of doubtful character, but have proved clinically not to have been typhoid fever. One of these cases, multiple abscess of the liver, has been referred to previously.

The blood from two typhoid cases, although examined twice failed to react. One of the patients died the day following the last examination.

There is considerable personal equation in reports on this subject and that is why reports vary so much. It cannot be disputed that a certain number of cases not typhoid will give an absolutely typical reaction. One observer says three per cent. of all cases not typhoid will give a typical reaction. It has been observed in certain cases of valvular disease of the heart and in pneumonia.

Dr. Park of the New York Health-Board claims that if the serum is diluted one-twentieth with water, typhoid fever alone will produce the reaction but if no such dilution is used, various diseases will give it at times.

VALUE OF THE TEST.

As ninety per cent. of typhoid cases in one thousand give a positive reaction, it stands to reason that a positive reaction is fairly conclusive that the case is typhoid if we get a typical reaction. If, however, the serum does not react we must not declare that the disease is not typhoid, for the reaction may be delayed. We must use the test as an accessory to the other means at hand for determining the true nature of the disease. We must not reject the test because it is not absolutely perfect, for the most skeptical observer must confess that it is present in the great majority of cases of typhoid.

Nobody was more skeptical than myself when I first began the work, but the more I use the test the more I am convinced that it is of decided value. But it would be utter folly to say that a case that did not react was not a true case of typhoid, especially if all the usual clinical symptoms were present. Let us, then, estimate the test at its true value and not condemn it utterly because it is not perfect.

USE OF DIPHTHERIA ANTITOXIN.

COUNTY REPORT.

OLIVER C. SMITH, M.D.,

HARTFORD.

In submitting to you a report on the use of diphtheria antitoxin in this County, I should perhaps apologize for bringing to your notice a subject upon which most of you are so well agreed. It is a fact, however, that antitoxin still has some opponents. The secular press has occasionally noted deaths due to its use, it is still attacked by some writers in the medical journals, and at times we are hampered in our work by the reluctance of the patient at having the remedy employed. It is my hope that the statistics compiled from the reports of the members of this Society will establish the value of the antitoxin treatment of diphtheria beyond the possibility of doubt.

Fifty-six physicians have replied to the circular letter, twenty-eight of whom have not used the serum; twenty-eght report having used it in a total of four hundred and three cases, including twelve cases kindly given us by the Hartford City Hospital. The Klebs-Loeffler bacilli were found in two hundred and sixty of these cases, in one hundred and seventeen of the cases no cultures were made; one hundred and sixty-nine were laryngeal or croup cases—of these one hundred and seven recovered, a percentage of 60.3; of the two hundred and thirty-four non-laryngeal cases, one hundred and ninety recovered, a percentage of eighty-one. Results were observed in nearly all cases, in from two to twenty-four hours. The majority favored repeating the injection in from twelve to twenty-four hours, unless a marked improvement had

taken place. Three only observed urticaria, in a small percentage of cases; no other unfavorable results were reported. Six have reported using antitoxin for immunizing purposes; ninety per cent. of those treated escaped the disease after having been exposed.

The report of the Nursery and Child's Hospital in New York is interesting in this connection. "In the three weeks preceding April, 1895, there were fifteen cases of diphtheria. Upon that day one hundred and thirty-six children, varying in age from three weeks to four years, were immunized by receiving from fifty to one hundred units each. The children showed no bad effects from the injections. The temporary rise in temperature occurred in one-quarter of them, which lasted from six to twelve hours. From the day of the injections to the present time, no diphtheria has developed in the Hospital, with two very interesting exceptions, the physician and a nurse who had not been immunized; since then the Hospital has been free from diphtheria."

The majority favor the antitoxin made by the New York Health-Board, or Mulford. From two hundred to one thousand units have been given for immunization, and one thousand five hundred to two thousand five hundred in treating the disease. Two are in favor of tracheotomy where an operation is required, and sixteen are in favor of intubation.

We find by comparison of these statistics with those gathered by Dr. Guerard from Berlin, Paris and New York, that our statistics are not unlike those from all parts of the world. In 1893 in Berlin the death-rate per one hundred thousand of population was 100.8; in 1896 it was reduced to 30.9. In Paris in 1893, 51.4; in 1896, 17.5. In New York in 1893, 145.5; in 1896, 91.3. The mean death-rate from diphtheria in the three cities in 1893 was 99.2; in 1896, 46.5, or a reduction of over fifty per cent.

The serum-treatment of diphtheria rests upon the foundation of the following principles established by Behring and Kitasato, and published in 1890: "1. The blood of an animal immunized against diphtheria is able to destroy the poison of the disease. 2. This property can be demonstrated in the blood taken from the vessels and also in the serum which comes from it freed from all corpuscles. 3. This property is so durable that it persists even after transfusion into other animals, and can thus be used in the treatment of the affection. 4. This property is wanting in the blood of non-refractory animals, and the poison can be discovered after their death in the blood and other fluids."

The objections to the use of antitoxin are, the natural repulsion which patients have in submitting to an inoculation of an animal-lymph, and with children we have the fright and resistance to overcome. In any case where it is absolutely impossible to give the remedy hypodermically, it is better to give it by the mouth or rectal injection than not at all; for we have learned recently by the researches and experiments of Escherich and Fisch that the serum is absorbed and renders the blood antitoxic within twenty-four to thirty-six hours. It is true that its use is followed in some cases by a slight shock, rise of temperature, and later by urticaria, which makes its appearance usually after the fifth day. There is a rise of temperature accompanying the urticarial eruption in about twenty per cent. of the cases, which lasts from one to four days; occasionally there is a tenderness of the joints with swelling and redness. These cases usually recover in a few days, but some are more protracted. That antitoxin increases the danger of nephritis and paralysis, no one who has had much experience in its use will admit. Given a clean skin, a sterilized syringe, and carefully prepared antitoxin serum, and

there is comparatively no danger from local abscess or sepsis. To avoid the local irritation caused by injecting a large quantity of serum, a high grade or conceutrated preparation is advised. The amount to be given should be graduated according to the size of the patient and the severity of the disease. In mild cases occurring in children, one thousand to one thousand five hundred units; for laryngeal or nasal diphtheria two thousand to two thousand five hundred units, followed in eighteen hours by a similar injection; for an adult the quantity should be from one-half as much more to double the amount.

We have learned from experiments that with each hour after the onset of the disease, so rapid is the septic absorption, that the beneficial effect of antitoxin becomes less marked, hence the great importance of giving the treatment early. We are tempted to wait until after a culture has been made, or until the case becomes desperate before using the serum. Is it not better to use it at once in a case of marked symptoms instead of waiting for a culture test, or in a mild case immediately after we have found the Klebs-Loeffler bacilli?

RECOMMENDATIONS.

In order that antitoxin may be obtained without dangerous delay, a supply should be kept at some accessible place where it can be obtained at any hour, on any day, in every town of the Commonwealth. Furthermore, it should be supplied free of cost to those unable to pay for it, as is now the case in New York city. What greater charity can be imagined, what alms-giving could be more far-reaching in its results? I also believe the health-boards should be empowered to use it for immunizing whenever and wherever there is an outbreak of the disease.

The fact that in ninety per cent. to one hundred per cent. of children exposed to diphtheria the disease can be

averted by immunizing injections, and the fact as reported by the members of our Society that while, prior to the use of antitoxin from eighty per cent. to ninety per cent. of the laryngeal cases of diphtheria died, and that now the percentage of recovery is reversed, brings us to realize that this agent is in the highest degree a life-saving factor. Few of us have witnessed any recoveries under five years of age, with operation or without, in cases of the laryngeal type; now recovery is the rule, and death the exception. Who among us cannot recall case after case of the little sufferer struggling for breath, the voice becoming fainter and fainter, until the whispered appeal for air can no longer be heard? Who among us has not felt heart-sick at his helplessness to relieve the agonies of the suffocating child, and the untold anguish of the distracted parents? And what a prodigious relief to awaken to the realization that we can now hold out hope in every case, and that we have at our command a remedy which is the truest specific of any therapeutic agent which has been given to us since the days of Æsculapius.

Let us felicitate ourselves that in the closing decade of the nineteenth century, a century of scientific triumphs, this, one of the greatest of achievements when measured by its saving of human lives, has been given to the world by the medical profession.

INTUBATION OF THE LARYNX.—REPORT OF FIFTY CASES.

FRANK W. WRIGHT, M.D.,

[redacted] HAVEN

The perfection of intubation of the larynx, by the late Dr. Joseph O'Dwyer, after years of patient labor and unceasing care, marks a bright epoch in the treatment of laryngeal stenosis that can never be eclipsed by any future invention. He states in an article entitled, "The Evolution of Intubation," which was read before the American Pediatric Association at the Montreal meeting in 1896, and published in the June number of the Archives of Pediatrics for the same year, that "complete failure with tracheotomy in the New York Foundling Hospital extending over a period of several years was the real incentive to the work."

Too much honor cannot be given to the man who has done so much to diminish the sufferings of infancy and childhood, who labored so many years on lines entirely original as far as he knew, and who, when he learned that another had attempted to relieve obstruction of the larynx by a tube, refused to look up the literature of the subject for fear he might be discouraged by the failure of his predecessor. His great work in conjunction with the more recent diphtheritic antitoxin serum treatment has now robbed diphtheritic laryngitis of its terrors and so revolutionized the results of treatment that instead of a mortality of at least ninety per cent., we now under favorable conditions expect as high a percentage of recoveries. Indeed, intubation is now done to the almost entire exclusion of tracheotomy. This latter operation is not now performed in any of the public institutions

or in private practice except when an intubationist is not at hand or except when intubation has failed to give relief on account of the membrane having extended beyond the reach of the tube.

The advantages of intubation over tracheotomy are that the former is more quickly done, there is no cutting and it consequently is more readily consented to, does not require trained assistants or trained nurses, can be done without special preparation, and there is no wound offering a point for fresh infection, which requires careful attention long after the original trouble has disappeared. As I have said, a trained nurse is not necessary. Any intelligent person who is used to the sick, who will minutely follow instructions, and can put herself in touch with the little ones will do, but when it is practicable a trained nurse is to be preferred.

It must be borne in mind that notwithstanding intubation has given very gratifying results it is a serious surgical operation and should be practiced only after due consideration and the certainty that dyspnea is so great as to threaten life. On the other hand, it should not be delayed until the little patient is exhausted. The better the physical condition, the more favorable the prognosis.

The technique of the operation is as follows: The tube is selected according to the age and size of the patient and a piece of braided silk is passed through the eye in its head. This should be long enough to extend several inches beyond the mouth after the tube is in the larynx. The object of this is to withdraw the tube should it be necessary either from its being plugged by membrane, or having failed to have entered the larynx. Two assistants are necessary, a physician and a nurse if practicable, yet any intelligent person will do who will follow instructions and not get excited. The patient is then wrapped in a sheet, carefully pinned so that the arms cannot be raised. If this is neglected the child is almost sure to

get its hands free, catch the string and undo the work. The patient is then placed in an upright position on the lap of the nurse, the head resting upon her left shoulder, her limbs holding those of the little one. She then with her hands holds the arms and body as still as possible. The assistant standing behind and to the left of the nurse places a hand upon each side of the child's head, holds it immovable and in a line with the body. The operator sitting so as to directly face the patient inserts the mouth gag and gently opens the mouth as wide as possible. As the gag is self-retaining, it is not necessary for the assistant to touch it if carefully adjusted. When the child has no teeth it is not necessary to use the gag. The left index finger is then passed along the tongue and beyond the epiglottis until the arytenoid cartilages are felt, it not being necessary and often impossible if there is much swelling, to give attention to the anatomical relation of the opening of the larynx to the other parts. Having located the chink of the glottis, raise the finger slightly so as not to obstruct respiration entirely; pass the tube along the inner surface of the finger, being careful to keep the handle of the introducer in the median line of the body. As the end of the tube approaches the glottis again place the finger upon the cartilages so as to act as a guide to the tube which is passed downwards and forwards by raising the handle of the introducer. When the tube has entered the larynx for about two-thirds of its length, release it from the obturator and by placing the finger upon its head, push it down to its proper position, at the same time withdrawing the instrument. Before taking the finger from the mouth pass it down behind the larynx and if the tube is in place the posterior wall of the larynx will be felt between the finger and the tube; but if it is not in place, it will be found in the upper part of the esophagus and can be removed by the string and the

operation repeated. It is seldom necessary for a person of experience to make more than one trial if the patient has remained in the correct position and the handle of the introducer has been kept in the median line. As soon as the instruments and finger are removed the patient should give an expulsive cough, the more violent the better, as it more quickly and completely removes from the larynx any membrane or mucous that may be there. If the cough is not forcible enough to clear the tube, a little whiskey and water given to the child will excite a spasm of the larynx that will expel any membrane that would be likely to interfere with respiration. After a wait of sufficient duration to satisfy one's self that there is no obstruction to respiration the string may be removed by again using the gag and placing the left index finger upon the head of the tube and with the other hand draw upon one end of the string. One must be careful to press firmly upon the tube while pulling upon the string lest the tube be drawn from the larynx. The writer has grave reason to regret the neglect of this precaution in one instance.

The prognosis now depends upon the amount of septic infection and the possibilities of such complications as bronchopneumonia, occlusion of the lumen of the tube by exfoliating membrane and exhaustion from inability or refusal on the part of the patient to take sufficient nourishment and stimulant. If there is but little septic infection or if it is within forty-eight hours of the inception of the disease the administration of three thousand units of the diphtheritic antitoxin serum renders the prognosis favorable. If the patient has had the antitoxin twenty-four hours or so before the intubation is done, the chances of recovery are very much increased. So much importance do I place upon this that I estimate the length of time it is necessary for the tube to remain in the larynx any membrane or mucus that may be there.

from the date of the operation. Many cases are met that from neglect or from ignorance have been allowed to progress without the proper treatment until the amount of septic infection has rendered the prognosis very grave. Since by antitoxin treatment the course of the disease is materially shortened and the time the tube is retained in the larynx is correspondingly shortened, the danger of bronchopneumonia being a complication is very much lessened. In over fifty intubations I have seen it only five times.

About thirty-six to forty hours after antitoxin has been administered the membrane begins to loosen and as the child coughs, or even by the act of expiration, this may be forced into the tube and partially or completely, slowly or suddenly, so interfere with respiration as to render the necessity for the immediate removal of the tube proportionate to the amount of stenosis. It is not infrequent to be obliged to remove the tube temporarily for the purpose of cleaning. In two of my cases they were apparently doing well, the membrane was driven into the tube by violent paroxysms of coughing, so completely plugging the tube that death ensued from suffocation in a few minutes. Such accidents are rare, but are occasionally unavoidable.

The greatest difficulty one encounters in the after treatment of these cases is in feeding the patients. After the antitoxin has been given no medicine is required except possibly strychnine, in some few cases; but milk and whiskey in large quantities are imperatively indicated. There is always more or less difficulty in swallowing, as the epiglottis cannot be closed tightly over the head of the tube, yet it is surprising how readily some children learn to drink while intubated. The difficulty as a rule is in proportion to the amount of swelling of and about the epiglottis. I have had very poor success in feeding children in the manner usually recommended;

that is, by placing the children in such a position that the head is lower than the body so that by gravity the liquid is kept from the tube. If the patient is old enough to feed himself I find that by placing him in an upright position, allowing him to take the cup in his own hands, and without assistance or urging from others, he be given a chance to drink, he will usually do so. He will drink a few swallows, then he will cough and then he will drink again. If any attempts are made to help him or urge him, he soon refuses to take more. Semi-solids, such as custards, ice-cream, soft eggs, etc., are usually taken with ease, provided the same care is exercised as when liquid nourishment is being given. In very young children and in others when the quantities of milk and whiskey taken are not satisfactory, rectal alimentation can usually be successfully practiced for the short time required. My rule for small children is to give every three or four hours after the bowels have been washed out an enema of an ounce and a half of predigested milk and a half ounce of whiskey. This is usually retained, but if it is not, I add a few drops of tincture of opium. This not only controls the bowels but quiets restlessness and cough and reduces the number of respirations. In several instances when I could not nourish and stimulate either per orem or per rectum, I have successfully carried the patient for the few days necessary by using at intervals whiskey hypodermically and strychnine by the mouth, depending entirely upon the stimulants.

The following case illustrates this treatment: H. G.—, aged five years, had been sick several days with diphtheria. When it became laryngeal, I was asked to see him. His condition being bad and the stenosis great, he was immediately intubated. Two thousand antitoxin units of anti-diphtheritic serum had been used several hours before the operation and two thousand more were

used at the time. He took his nourishment poorly and rectal feeding was practised for nearly two days, when the bowels refused to retain the enemata. He was then given as often as his pulse indicated its need a hypodermic of one-half dram of whiskey and every four hours one-sixtieth of a grain of sulphate of strychnine. This was continued for about thirty-six hours, and then the tube was removed. After its removal the child took his milk and whiskey by the mouth without difficulty and ultimately made a good recovery.

After intubation the temperature may go up several degrees, especially if antitoxin is administered about the same time. For this I use cool sponge-baths and sometimes phenacetin. In favorable cases the temperature gradually drops but when this remains at 103° or more, or when it has dropped to nearly normal and then goes up the prognosis is bad.

To extubate is at any time, to a great extent, experimental. Many intubationists prefer to defer this until all probabilities of its being necessary to replace the tube are past, rather than to risk the possibilities of re-intubation. I cannot agree with this practice, as I believe the larynx should be freed from the tube as early as possible with safety to the patient. In both the cases mentioned above in which the children died from sudden occlusion of the tubes I had considered the advisability of removing the tubes, but as they were doing nicely I decided to wait. I now believe had I extubated when I hesitated, both lives would have been saved. Even had it been necessary to replace the tube at once, the loosened membrane would have been removed and clean tubes would have been used. In removing the tube I am influenced by the following conditions; when the temperature has dropped to 99° or less, the child is bright, taking an interest in persons and playthings, where there has been a membrane upon the parts that can be seen and this

has disappeared and when the child has been unable to take a satisfactory amount of nourishment.

Extubation is somewhat more difficult than intubation. In the latter case the operator has control of the tube, while in the former he has to get control of it. There have been many devices for removing the tube but the one most commonly used is that of O'Dwyer. This is a sort of curved forceps with the bill the shape of the opening in the tube and somewhat roughened on the outer surfaces. It is kept closed by a spring and opened by the pressure of the thumb upon the upper part. A set screw upon the inner side regulates the degree to which it can be opened. Care should always be taken to have this adjusted to the proper size necessary for the removal of the tube. If this is not attended to great damage may be done to the upper portion of the larynx. The only other extractor with which I am familiar is that of Dr. Dillon Brown. This consists of a small hook attached to a ring to be placed upon the end of the index finger. The purpose is to remove the tube by hooking into a hoop soldered upon its head. This, of course, requires a specially constructed tube. The only objection to this is that the ring interferes with the sense of touch.

The position and management of the child is the same in both intubation and extubation. Assuming it is the O'Dwyer extractor that is to be used, after having the patient in position and the gag in place, pass the left index finger down until it rests upon the posterior portion of the head of the tube, being careful not to have the finger far enough forward to obstruct respiration, as this will only make the child struggle and increase the difficulty in placing the extractor into the opening of the tube. Now, pass the extractor along the palmar surface of the finger, keeping the handle in the median line of the body until it touches the tube in front of

the finger, when by gentle manipulation it will be felt to drop into the opening. Then press firmly upon the thumb-piece and withdraw. When the child is in the correct position this is usually very easily done, but when not kept in the proper position or when there is any deviation of the handle of the extractor from the median line, it is very difficult.

One should not leave the patient for at least a half hour as the dyspnea may return and re-intubation be necessary. It is well to give an opiate to allay the cough. I always recommend when practicable that this be given an hour or so before extubation so as to have the patient well under its influence, thus avoiding excitement on his part as well as allaying irritability of the larynx.

In commenting upon the O'Dwyer extractor which so many have tried to improve upon and which is yet almost universally used, I can say that after extubating the larynx over one hundred and fifty times, the only fault I can find with it is the difficulty one has in keeping it clean.

Occasionally it happens that after the primary lesion for which the intubation was originally done has disappeared it is impossible to remove the tube without the stenosis returning, necessitating re-intubation. This condition may last weeks or months, and is termed "retained tube." For a full description of the cause and management of these cases I refer to an article read before the American Pediatric Association in May, 1897, by O'Dwyer. This article was published in the July, 1897, number of the Archives of Pediatrics. The writer has had one case of retained tube, following an intubation done to relieve laryngeal stenosis after measles. In this case the tube was worn for thirty-eight days and was only cured by using a special form of tube. This case has been reported in full in the Pediatrics of May 15, 1898. A peculiarity of these cases of retained tubes is

	Sex.						Antitoxin Used.			Complications.				Causes of Death.			
	Male.	Female.	Class.	Age.	Condition.	Duration of Disease.	Units.	Time.	Tube in the Larynx.	Sepsis.	Nephritis.	Broncho-pneumonia.	Results.	Sepsis.	Broncho-pneumonia.	Accident.	Exhaustion.
Case Number I.		1	A	28 mos	B	4 days	1500	24 h†	1 h	1			Death	1			
" " II.		1	D	22 mos	B	4 "	1500	0	12 h	1		1	"		1		
" " III	1		D	5 yrs	B	4 "			12 h	1			"	1			
" " IV		1	D	30 mos	B	4 "	1500	24 h†	6 h	1			"	1			
" " V		1	C	7 yrs	B	4 "	1500	4 h†	12 h	1			"	1			
" " VI		1	D	30 mos	B	2 "			8 h				"				1
" " VII		1	A	26 mos	F	1 "	4000	2 h†	7 d				Recov'y				
" " VIII	1		B	15 mos	F	1 "	1500	4 h-	12 h				Death				1
" " IX		1	A	4 yrs	B	3 "	3000	8 h-	4½ d				Recov'y				
" " X	1		D	5 yrs	B	3 "			8 h	1			Death	1			
" " XI		1	B	30 mos	B	4 "	2000	6 h-	2¼ d	1			Recov'y				
" " XII	1		B	7 yrs	F	3 "	2000	0	2½ d				"				
" " XIII	1		B	3½ yrs	F	4 "	3000	18 h†	2½ d				"				
" " XIV	1		A	3½ yrs	B	1 "	2000	0	4½ d				"				
" " XV		1	D	4½ yrs	B	2 "	2000	4 h-	4½ d				"				
" " XVI		1	A	2¾ yrs	B	3 "	3000	18 h†	3½ d	1		1	"				
" " XVII		1	B	20 mos	B	4 "	2000	8 h-	1 d	1		1	Death		1		
" " XVIII	1		B	30 mos	F	3 "	3000	20 h†	3 d				Recov'y				
" " XIX		1	B	7 yrs	B	3 "	3000	24 h†	12 h	1	1		Death	1			
" " XX	1		B	3 yrs	B	3 "	2000	24 h†	6½ d				Recov'y				
" " XXI		1	B	2 yrs	B	1 "	1500	0	7 d				"				
" " XXII	1		C	10 mos	B	1 "	2000	4 h†	4 d				"				
" " XXIII		1	B	17 mos	F	2 "	2500	30 h†	2¾ d				"				
" " XXIV		1	A	5 yrs	F	4 "	2000	0	1½ d				Death			1	
" " XXV	1		C	6 yrs	F	2 "	2000	16 h†	3½ d				Recov'y				
" " XXVI		1	B	19 mos	B	4 "	1500	0	4 d				"				
" " XXVII		1	C	16 mos	F	2 "	2000	6 h†	3¾ d				"				
" " XXVIII	1		D	14 mos	F	1 "	2000	0	3 d				"				
" " XXIX		1	B	24 mos	F	2 "	2000	0	4 d				"				
" " XXX	1		B	20 mos	F	2 "	2000	14 h†	2 d				"				
" " XXXI	1		C	5 yrs	G	1 "	1500	0	4½ d				"				
" " XXXII		1	D	18 mos	B	2 "	3000	0	12 h				Death				1
" " XXXIII		1	D	30 mos	B	4 "	3000	0	20 h				"				1
" " XXXIV	1		B	5 yrs	B	4 "	4000	12 h†	3½ d		1		Recov'y				
" " XXXV	1		D	5 yrs	B	4 "	1000	8 h†	2½ d				Death			1	
" " XXXVI		1	C	30 mos	B	3 "	2500	6 h†	18 h	1		1	"	1			
" " XXXVII	I		C	4½ yrs	G	2 "	3000	0	4 d				Recov'y				
" " XXXVIII	1		A	6½ yrs	F	2 "	3000	6 h†	5 d				"				
" " XXXIX		1	D	30 mos	F	2 "	1500	30 h†	5 d				"				
" " XL		1	B	22 mos	G	2 "	1500	3 h†	2 d				"				
" " XLI	1		D	20 mos	B	4 "			1 d	1			Death	1			
" " XLII	1		C	3 yrs	G	7 "			38 d			1	Recov'y				
" " XLIII		1	C	6 yrs	F	4 "	3000	6 h†	3¼ d				"				
" " XLIV	1		A	5½ yrs	B	4 "	3000	6 h†	1 d	1			Death	1			
" " XLV	1		B	24 mos	F	1 "	1500	0	3½ d				Recov'y				
" " XLVI	1		B	5 yrs	B	3 "	1500	0	3½ d				"				
" " XLVII		1	B	5 yrs	F	4 "	1500	0	3 d				"				
" " XLVIII	1		D	20 mos	B	4 "	3000	3 h-	12 h	1			Death	1			
" " XLIX	1		A	3 yrs	G	1 "	1500	0	2¾ d				Recov'y				
" " L		1	C	21 mos	B	4 "	1500	0	1½ d	1			Death	1			

Class—A, Care the best; B, Good; C, Fair; D, Poor.
Condition—G, Good; F, Fair; B, Bad.
Duration—One day means one day or less. Four days means four or more days.
Time of Use of Antitoxin—0 means at time of; † before & - after, operation.
Time Tube was in Larynx—Approximate.
Case XLII—Retained Tube.

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that nearly all occur in children in which the three-fourths size tube is used.

From July, 1896, to April 1st, 1898, the writer did in private practice, fifty intubations. A synopsis of the accompanying table shows that there were thirty-one recoveries and nineteen deaths, making sixty-two per cent. recoveries. The average length of time that the tube was in the larynx of those that recovered, exclusive of case XLII, where the tube was retained for thirty-eight days, but which was not diphtheritic, was 2.48 days. In only one case was there death later than twenty-four hours after the intubation and this was one of those mentioned whose death was due to membrane obstructing the lumen of the tube. This leads me to believe that ordinarily, if the patient can be carried safely over the first two and one-half days, we may give a favorable prognosis.

Of these fifty cases, twenty-four were males, twenty-six females. Divided into classes, A representing those having the best of care; B, good; C, fair; and D, poor, there were in class A, nine cases and three deaths; in class B, seventeen cases and two deaths; in class C, ten cases and three deaths; in class D, fourteen cases and eleven deaths. The approximate duration of the disease at the time of operation was in nine instances within one day, only one of which proved fatal; in twelve, within two days, two of which proved fatal; and in nine within three days, six of which did not recover; and in twenty, four or more days, only seven of this class recovering. The conditions of these when I intubated were in twenty-eight, bad; in seventeen fair, and in five good. The oldest was seven years and the youngest ten months of age; the most frequent age being between twenty and thirty months, there being twenty within these limits who with only four exceptions recovered. All but five had antitoxin, two of which were non-diphtheritic. The number

that had antitoxin at least twelve hours before being operated upon was twelve, of whom nine recovered; at the time of operation or within twelve hours preceding it, twenty-eight, nineteen of whom recovered; three to eight hours after, five, three of these proving fatal. The complications were marked septic infection in fifteen cases, nephritis in two, and bronchopneumonia in five. Death was caused in eleven instances by sepsis; in two, by bronchopneumonia; in two, by sudden plugging of the tube by loosened membrane; and in four from exhaustion.

The writer's conclusions are that it matters but little, what may be the sex, age or condition of the patient at the time the intubation is done, but to have the prognosis good, it is absolutely imperative that a large dose of antitoxin must be given within forty-eight hours of the inception of the disease and that at least ordinarily intelligent nursing be bestowed upon the little patient.

DISCUSSION.

Dr. Loomis.—If cases are taken early enough there is little danger from the operation per se.

Dr. Swasey.—In this paper is any distinction made between pseudo-membraneous croup and diphtheria? Formerly in these two diseases the result was uniform—all died. Since the use of antitoxin results have been better. He had one case of undoubted laryngeal stenosis. The child evidently could not live until morning but with the use of antitoxin it became better and convalesced. How can we ascribe to intubation alone the credit of the cure, when both the serum and the tube are used? We generally give the credit to the former. Intubation since the introduction of antitoxin, is becoming obsolete.

Dr. Wright.—In most of the cases a bacterial examination was made and in all but one Klebs-Loeffler bacilli were found.

Dr. Abrams wanted to know how many cases Dr. Wright had had in a year. He has a nice intubation-set and would like a chance to use it. There has not been a case of intubation in Hartford since antitoxin was introduced. He has seen six cases, all of which would have been fatal without antitoxin, all of which recovered with it. He would like to ask Dr. Wright how many cases he has had in a year.

Dr. Beckwith congratulated Dr. Wright on his success. If one can become familiar with the instrument he will get good results. If one can only relieve the terribly distressing dyspnea it is accomplishing much. It must be allowed that the doctor's deductions are correct. It would seem that there is not that irritation in the larynx which produces bronchopneumonia. We ought to be thankful to Dr. Wright for his paper.

Dr. Durell Shepard.—Dr. Wright has intubated a number of cases for him and the relief of the dyspnea was great, the greatest relief to a patient imaginable. If it was one of his own children he would have intubation done in preference to tracheotomy.

Dr. Wright said that he had not intubated every case. Since he first used antitoxin he has had one hundred and ten cases of laryngeal stenosis. The only ones intubated were the worst. Many in the room can certify as to the necessity of intubation. Of fifty or more who were not intubated, six or seven died. He has done many who were perfectly hopeless at the time. Like other physicians who do a good deal of a certain kind of work, he has devised a change in the O'Dwyer instrument. This is to facilitate the grasping and the distending of the tube.

MUSHROOMS AND MUSHROOM POISONING.

G. N. Lawson, M.D.,

MIDDLE HADDAM.

Interest in the study of our edible fungi has been growing rapidly for several years, due largely to the inspiring articles and book of our late artist-naturalist, William Hamilton Gibson. This popular interest, like most good things, has its advantages and its dangers, and both should be thoroughly understood by our profession.

Every year thousands of pounds of nourishing food go to waste in our fields and woods, which might be made available if the people had a knowledge of our wild mushrooms. For centuries the Chinese have made the fungi an important article of diet, and in Europe they are extensively used, more than thirty tons being sold in Rome each year. In this country comparatively few people are familiar with the edible species which are found growing wild, and the very high prices at which cultivated mushrooms are sold prohibit their use by any but the more wealthy people.

The nourishing qualities of mushrooms are unquestionable, for although like most vegetables, they contain eighty or ninety per cent. of water, the dry substance contains twenty to fifty per cent. of protein.

Thus chemically they more resemble meat than vegetable substance and on this account decay rapidly and should be eaten only when perfectly fresh and should be used with the same moderation as animal food.

In this State we probably have about seventy-five species of mushrooms which are known to be valuable for food. Of these I have eaten about twenty species. Besides these there are five hundred or six hundred

others, many of them known to be injurious when eaten, but by far the largest number are yet untested. The number of species which are known to contain a deadly poison is three or four, but there are many others which would cause sickness if eaten, as they are bitter, emetic, cathartic, indigestible, or in some other way distasteful to the digestive organs.

The question now arises, how shall we distinguish the edible kinds from the poisonous. Various rules have been suggested, but all are misleading and worse than useless. Two of the most common of these fallacious rules are that a mushroom is safe if it peels easily and that all poisonous mushrooms will discolor a silver spoon while they are being cooked. The only safe way is to know each species which we would eat as we would know an esculent vegetable from a poisonous weed—by its specific characteristics. There are two ways to study mushrooms. One is to take every new species to an expert, find out its name and nature, and make yourself familiar with its appearance. Experts are, unfortunately, not always at hand, so most of us will have to resort to the second method and get our knowledge with the help of books. Here a new difficulty confronts us. Most of the literature on American mushrooms is scattered through various publications and Agricultural reports. Mr. Charles H. Peck, State Botanist of New York, who is one of the best authorities on American fungi, tells me that he is preparing the way for a treatise on the mushrooms of America, but that the attempt to write such a work now would seem rather premature, as twenty-five or thirty new species turn up each year in New York alone.

The books which I should recommend are the following, and they might be obtained and read in the order I give them:

Gibson's "Our Edible Toadstools and Mushrooms," Harper Bros., $7.50.

Report of Charles H. Peck, State Botanist of New York, for 1895, published by James B. Lyon, Albany, N. Y.

Underwood's "Suggestions to Collectors of Fleshy Fungi," Cambridge Botanical Supply Co., Cambridge, Mass., twenty-five cents.

Peck's "Boleti of the United States," Cambridge Botanical Supply Co., forty cents.

Then if one wishes to go into the more scientific study of the subject, the best book for the further identification of species is Masse's "British Fungus Flora," four volumes at $2.00 a volume, McMillan. The parts may be had separately and those specially valuable are the first three volumes.

Lists of mushroom literature may be obtained from the Cambridge Botanical Supply Co.

There are mycological societies in Boston and New York for the study and testing of mushrooms.

MUSHROOM POISONING.

There are two classes of mushrooms, which I will name as the irritating and the deadly. The first class is poisonous because its members are irritating to the digestive tract. These fungi usually have a bitter, peppery or other unpleasant taste or are tough and therefore indigestible. Common examples of this class of fungi are russula emetica, lactarius piperatus and boletus felleus.

The treatment for a case of poisoning from eating mushrooms of this class is to give an emetic and to meet any indications that may arise.

A good formula is olive oil and whiskey, equal parts, to be given p. r. n. Vinegar and whiskey has also been recommended.

A certain time elapses between the eating of a poisonous fungus and the manifestations of symptoms of

poisoning. If this is less than five hours the patient has probably eaten of the irritant mushrooms of which I have been speaking. If from eight to twelve hours have elapsed before the person feels ill he has probably eaten of some deadly member of the genus amanita and his case is a serious one. Of this second class of poisonous fungi we probably have three species, the amanita phalloides, amanita verna and amanita muscaria.

These fungi contain active poisonous principles, muscarine or amanitine, depending on the species from which they are derived.

The symptoms of poisoning by this deadly group are: Sometimes nausea, vomiting, purging and distress in the epigastrium (these are sometimes wanting); ashy or leaden paleness, cold extremities, feeble and rapid pulse, contracted pupils. The sight becomes dimmed, the intelligence blunted, stupor comes on and death supervenes.

TREATMENT.

If the case is seen early enough give an emetic and a cathartic. Usually, however, the poison has entered the circulation before the patient is seen. There is one, and only one known antidote for amanita poisoning. That is sulphate of atropine administered hypodermically. I should give one-sixtieth of a grain at first and then half that amount every hour until the characteristic effects of the drug showed themselves or there was some other reason for its discontinuance. An occasional hypodermic injection of one-sixtieth of a grain of sulphate of strychnine would help to support the oppressed heart. Other indications should, of course, be met as they arise.

Mushrooms afford food for swarms of insects and their larvae. Some species are especially infested by them. I could find hardly a specimen of any of the edible russulae last summer that was not full of burrows and their

squirming inhabitants. Most of these larvae gain entrance at the base of the stem and work their way up. Even before they reach the cap the mushroom is made unfit for use, for their presence in the stem imparts an unpleasant flavor and perhaps an unwholesome quality to the whole fungus.

In closing I would make a few suggestions to mushroom eaters. In collecting in the field cut off the stem to avoid getting the dirty base against the other specimens, and to see whether larvae have tunnelled up from the ground. All wormy specimens should be discarded.

Keep the edible fungi separate from the unknown or suspected specimens, or disastrous results may follow from the contamination of the good by the constantly falling shower of spores from the poisonous. I have known an instance where a whole family was made ill in this way.

In preparing mushrooms for cooking the stems of most species should be discarded, as they are too tough and fibrous. As a general thing mushrooms should be peeled and the pore-surface of the boleti should be removed, as it forms a mucilaginous mass in cooking which is distasteful to most persons.

Cook all mushrooms as soon as possible after gathering, as they decay rapidly. If more than enough are gathered for one meal it is best to cook them all and warm over the residue, if desired, for the next meal.

Cook as simply as possible so as to preserve the flavor. A good way is to put them in a covered dish with a little butter and salt and set them in the oven for twenty or thirty minutes.

It is well to have different species cooked by themselves, so as to enjoy the special flavor of each.

Do not gorge on mushrooms any more than you would on meat. Remember their nitrogenous nature. Eat only species of whose nature you are sure. Avoid all sus-

picious kinds, and in the words of the story-book you will live happily ever after.

LIST OF MUSHROOMS EATEN 1896-7.

Agaricus Compestris.
A., Procerus.
A., Ulmarius.
Marasmius Oreades.
Russula Virescens.
R. Lepida.
R. Heterophilla.
Coprinus Comatus.
C. Atramentarius.
C. Micaceus.
Lactarius Deliciosus.
Boletus Edulis.
B. Scaber.
Strobilomyces Strobilaceus.
Fistulina Hepatica.
Polyporous Sulphureus.
Hyduum Repandum.
Clavaria Flava.
Lycoperdon Cyathiforme.
Amanita Caesaria.

THE RELATION OF MUSCULAR CO-ORDINATION TO TRAUMA.

E. H. Arnold, M.D.,

NEW HAVEN.

It is a matter of daily observation that children are subject to slight forms of trauma, as cuts and bruises, much more frequently than adults. Especially is this true in regard to traumata of the upper extremities, and here again the hands in particular bear witness to this fact. The hands of the average active boy are hardly ever free from the marks of some slight injury. The lack of muscular control is without doubt responsible for this state of affairs. The painful impressions connected with these injuries are one of the means by which we finally acquire muscular control, thereby giving accuracy to our motions. They are teachers of coördination, so to speak. If, therefore, slight injuries of the above character are an unavoidable and necessary phenomenon of childhood, nothing need nor should be done to prevent them. If, however, this lack of coördination does not disappear within a reasonable time, or if it gives rise to the graver forms of injury, then it is time to think of a remedy for the condition.

Proof must first be had that lack of coördination is a cause of graver injuries. Let us have an understanding of what is meant by coördination. Coördination is defined as the combination of muscles in consistent and harmonious action. Consistent with the necessities of the case which calls for muscular action, it must, in range of movement, celerity of movement, duration of posture and degree of force of muscular contraction, be suited to the circumstances of the case. Harmonious means

that only the muscles or groups of muscles concerned in the performance of the movement should actively contract, that those limiting or controlling the degree and celerity should be in what may be termed passive contraction, and that muscles not in any way needed for the execution of the movement stay relaxed. If any of these factors are faulty, then the product will be a faulty one, an action inexact and unsteady. Depending upon the surrounding circumstances we may then expect an injury to take place by the more or less violent contact of our body with things surrounding. While we are never absolute masters over surrounding circumstances and therefore cannot hope, even if coördination were developed to an ideal condition, to entirely abolish injury by such contact, we can certainly by improving coördination diminish the number of accidents of this kind and modify somewhat the character and extent of the same. If this were all that could be accomplished by developing the power of coördination, motor training as a prophylactic against injury is deserving of a great deal of attention.

The importance of coördination would be greatly increased if it could be proved that the incoördinate use of muscles is apt to harm tissues without bringing them into contact with things exterior. Proof to that effect is not wanting. I need only refer you to that well-known fact that fractures of the clavicle in most cases result not from direct violence to that bone but must be attributed to muscular contraction. That other fractures come about in the same way can be inferred from this, but we are not without positive proof. Let me relate a case of that nature. A boy of ten years, of some fame among his classmates for clumsiness, in the attempt to stop a tennis ball with his right hand tore off the internal condyle of his right arm. There was no contact with the ground, but simply with the ball, which was not thrown with much force.

That not only fractures but other injuries may result from incoördinate contraction, the following case will attest: A lad of fifteen in the attempt of bending the knees, the knees to be turned obliquely outward, tore the sartorius of his right leg. The explanation is simple—the sartorius instead of relaxing contracted, and having to accomplish the drawing in of the knee, yield or burst, suffered the latter fate, not being strong enough to accomplish the former.

A somewhat similar instance is that of a driver of a brewery wagon making an unsuccessful attempt at raising a keg of beer on his shoulder, a feat which he had accomplished many times every day before, and through misjudging the resistance tore the biceps.

One seems warranted in concluding that the lack of coördination is responsible for such cases at least as much as circumstances from the fact that injuries in individuals of notoriously bad coördination recur with a frequency that admits of no other explanation. I recall four cases in which in very short intervals two or three fractures took place in one individual, each on provocation altogether too slight to ordinarily cause fracture. All four cases are boys with notoriously bad coördination. More conclusive than this is the fact that in every instance the fractures occurred in the same locality, the right and left arm respectively.

The boy above mentioned as having torn loose the internal condyle of the right humerus had the same accident happen three times, and although it must be admitted that at least the third time showed that here was only a fibrous union, this fibrous union was quite firm enough for ordinary use at any rate. The condyle finally had to be removed to restore function. If anything were missing to conclude the chain of evidence it would be to show what muscles were in fault in coördinating. In two or three of the above cases I have been fortunate enough

to establish this point. These were repeated fractures of the forearm. It was found that the biceps, while not atrophied or paralyzed, did not perform its usual task, namely, flexion of the forearm, but that the supinator performed that office. It would lead too far into the detail of mechanics of the working of these two muscles to show how the accident should be made probable by this fault in coördination.

It would seem, then, that a great many traumata, especially fractures, could be charged up directly against lack of coördination, and especially in individuals suffering trauma of this kind repeatedly in the same region of the body. A diligent search for the fault of coördination should be made in order to provide the prophylactic remedy, namely, motor training.

A word may not be out of place as to the cause of this lack of coördination. While in several cases lack of normal development of the body seemed the only plausible cause, in several others the probability is that accidents of birth were responsible for the condition. There were among ten cases observed two of premature birth and three forceps cases.

A CASE OF PACHYMENINGITIS, INTERNA HEMORRHAGICA.

Arthur B. Coleburn, M.D.,

MIDDLETOWN.

The patient whose symptoms I wish to call your attention to was a female, seventy-five years of age, of temperate habits, no history of specific disease, widowed over thirty years, insane twelve years. She had hallucinations of hearing nine years ago and became easily enraged. During the last years of her life she had about two attacks of excitement daily (without any external cause often) when she would shriek, cry and curse, with periods of somnolence between. During the last month the somnolence increased and the periods of excitement were less frequent. Her pupils were regularly contracted and she had tinnitus aurium. She would not attempt to walk or stand unaided during the last two and a half years of her life, but spent her days in a rolling chair. Reflexes were exaggerated with no marked loss of tactile sense or muscular power. She had mitral regurgitation and an enlarged left ventricle.

The history of this case points to a chronic inflammation of the inner surface of the dura mater, causing the tinnitus aurium, alternating attacks of excitement and drowsiness and the impaired locomotion.

In these cases of pachymeningitis interna a layer of new tissue is formed on the inner surface of the dura mater and closely adherent. It is usually found over the convexity on one or both sides and is composed of connective tissue cells, a fine basement membrane and numerous blood-vessels. These thin-walled vessels often rupture and hematomata form in this new membrane.

This process may be repeated at more or less frequent intervals and the resulting mass, growing thicker and more dense, in time compresses the brain. A single large hemorrhage may cause death at any time during the course of the disease. This theory of pachymeningitis hemorrhagica, known as the "inflammatory theory" was advanced by Virchow in 1857 and is to-day supported by the leading pathologists. Many prominent alienists who have written on the subject (e. g., Robertson, Jour. Mental Science, 1888; Wiglesworth, Tuke's Psycol. Dict.) believe in and support the "primary hemorrhagic theory" which teaches that blood is poured into the sub-dural space, the so-called cavity of the arachnoid, and the dural inflammation is secondary. It seems probable that both theories may be correct and that in hemorrhagic pachymeningitis occurring with scurvy, purpura, leucocythemia or pernicious anemia, the hemorrhage is primary but is secondary to inflammation in chronic lesions of the brain, general paresis and alcoholic insanity.

The greater number of cases of chronic internal pachymeningitis occur between the ages of seventy and eighty years. Fifty per cent. occur after fifty-five.

Recurring to this patient: On March fourth she was gotten up as usual and ate her breakfast. At ten A. M. she was noticed in a sleep from which she could not be roused. Temperature normal, respiration full, laboring and of abdominal type, pulse one hundred, reflexes present, eyes closed, limbs flexed. If straightened she would resist and after force was removed, again flex the limbs, no local edema; could not be roused to swallow food. Her condition did not change for several days except that a slight muscular tremor of the left leg occurred on the third and fourth days. Passed her water in bed every day, her feces twice in eight days.

On March eleven the pupils were unequal, the right being dilated, the left still contracted and her temper-

ature rose to 98.6 F. On March twelfth her breathing became more shallow, temperature rose to 98.8 F., right pupil no longer dilated, left side contracted.

Trophic changes occurred in the skin over the right heel and at the site of a hypodermic injection in the thigh. She died at 2:30 P. M., of respiratory failure. An autopsy could not be obtained.

Comparing some of the possible causes of these symptoms we think of compression, concussion, embolism and thrombosis.

Symptoms.	Compression.	Concussion.	Cerebral Embolism.	Cerebral Thrombus.
Stupor.	Complete and increasing.	Partial and diminishing.	Developed suddenly. Infrequent and of short duration.	Developed suddenly or gradually. Less frequent than with embolism.
Pulse.	Full, usually slow. Rapid in meningeal hemorrhage.	Feeble.		
Pupils.	One or both dilated or contracted. Eyelids closed.	Contracted or not changed. Eyes open.		
Respiration.	Full and noisy.	Quiet and feeble.		
Surface temperature.	Normal or a little below.	Sub-normal.	Fall less marked than in hemorrhage.	Warm.
Muscles.	Natural.	Relaxed.		
Deglutition.	Impossible.	Little impaired.		
Paralysis.	Not always present.	None.	Aphasia, etc., according to location of the lesion.	
Convulsions.	Not always present.	None.	Often.	Not often.
		Restlessness. Vomiting.	Preceded by endocarditis.	Preceded by symtoms of indarteritis by puerperal condition and infectious diseases.
			Occurs in younger people than cerebral hemorrhage.	

Analyzing this case by the foregoing table we may safely conclude that hers was a case of compression due to hemorrhage. As to the site of this hemorrhage we know that hemorrhage between the dura and skull is caused by falls or severe blows on the head. The history in this case excludes these.

Hemorrhage between the dura and pia is due to falls and severe blows, diseased arteries, chronic internal pachymeningitis and miliary aneurisms.

Symptoms.—Loss of consciousness may be complete or partial, sudden or gradual. In sub-dural hemorrhage the interval of consciousness is more often absent than not. In extra-dural it is usually present. There may be no motor paralysis, which is not as constant as with cerebral hemorrhage. Sensation may be impaired or unchanged. Convulsions may be local or general—at first or later. Hemorrhage into the substance of the brain is caused by traumatism, miliary aneurisms or diseased arteries.

Symptoms (excluding traumatic cases).—Prodromic period frequent, during which we may have temporary paralysis, retinal hemorrhage, etc. If the clot is in the motor tract or basal ganglia we have sudden coma, hemiplegia, facial paralyses and sudden death. Outside these tracts, if the clots are large, alternating convulsions and delirium, coma and death within a few days.

If the clots are small we get aphasia, hemiplegia, etc., according to location.

Cerebral embolus differs from cerebral hemorrhage in that it occurs regularly in younger people and the lesion is usually on the left side in the cortex and is smaller.

Loss of consciousness is less common in cerebral embolus—aphasia and local paralysis more common.

In hemorrhage from a sinus the coma comes on grad-

ually. In thrombosis of a sinus local edema is characteristic.

It seems proven that in the case of the patient whose history I have given, there was added to an already existing source of irritation, the pachymeningitis interna, a hemorrhage from a vessel in the inner surface of this false membrane which was sufficient in amount to cause her death with its attending train of symptoms.

While the rise of temperature after the first few days was very slight, it is to be noted that in these old persons there may be little chance for reaction.

Dr. J. J. Putnam in Jour. Med. Sci., 1895, reports a case of sub-dural hemorrhage in an old lady, with thickened, vascular meninges who lived ten days after hemorrhage with no slowing of pulse and only a slight rise of temperature toward the end. In cases of sub-dural hemorrhage the "Hutchinson pupil" is of great importance, i. e., a dilated pupil on the side of the hemorrhage, the other side being normal or contracted. This indicates pressure on the third cranial nerve and locates it in the middle fossa.

"In all these cases where the pupils are insensitive and dilated the compression is extreme and death is inevitable."—Jacobson, Guy's Rep., 1886.

A CASE OF DOUBLE HOMICIDE.

HENRY PUTNAM STEARNS, M.D.,

HARTFORD.

Homicides have not been so infrequent in Connecticut during the last few years as to furnish a sufficient reason for a report of the following case. I, however, have thought it might be of interest from a medical point of view, as it affords data in relation to the initiation and progress of a special form of mental disorder.

January 19th, E. A. D., went from M., Connecticut, where he had been working for four or five weeks as a machinist, to N. H. It appears that he visited several of his acquaintances after arriving in the city and had some repairs made on his clothes at the shop of a tailor. About five o'clock he went to the house where his wife was living with her two children and her mother. On the way to the house he went into a saloon, where he met an acquaintance, and asked for a glass of beer. He did not appear to have been drinking, but was "sullen and glum." After taking the beer he immediately left the saloon, going down the street, and passed directly to the kitchen in the back part of the house where his wife was living. His wife was in the kitchen, and her mother in an adjoining room with the little daughter, while a boarder, a cousin of Mrs. D—., was shaving in another room.

D— was therefore alone with his wife in the kitchen, and it soon became evident that he was endeavoring to induce her to go with him to M. Her experience in trying to live with him in the past, which she had done many times, had been such that she refused to try it again. He appears to have become greatly enraged at

this, and, declaring that he would kill her, he pulled from his pocket a large Colt revolver. She immediately screamed and ran out of the door, while he followed her around the house, and at the front gate shot her, the bullet taking effect near the left breast. She struggled out of the gate and fell forward to the curb of the sidewalk. He seems to have been uncertain whether he had killed her, and going over where she was lying, he put his revolver to her left ear and fired a shot which pierced through the lower portion of the cranium. He then returned to the house where he saw his wife's mother and attacked her. R—, the cousin, undertook to defend the woman, and D— fired at him in the scuffle, the bullet grazing his neck. R— made his escape, while D— immediately followed Mrs. M— into another room to which she had fled, and shot her in the head. He then fired two more shots, one into her chest, and the other shattered one of her arms.

After this he went out of the house and around to the front door, near which he stood and reloaded his pistol. He then walked up the street with revolver in hand, while the crowd followed at a distance. One man with more courage than the others, attempted to approach near enough to seize him, but D— threatened to shoot him if he came nearer. He continued walking about as if in search of some one else.

In a short time a wagon from the police station arrived with a number of officers, and upon seeing them he made no attempt to escape or further defend himself. He was speedily disarmed and landed in the patrol wagon.

The crowd soon pressed around the wagon and began to yell, "lynch him," "kill the brute," and if he had not been secure in the hands of the police and rapidly taken to the station, it is likely it would not have been an easy matter to keep him from the hands of the angry

crowd. He was placed in a cell, and after some time was visited by the coroner, but would say nothing, though occasionally he sobbed, and became greatly despondent; so much so that the officer directed that he be watched and that everything with which he could injure himself be removed from the room.

After all was quiet he stretched himself on a bench, and after some groans and sobs, fell soundly asleep. In the morning, when visited by the police, he seemed to be in a profound stupor, and it required so much effort to wake him that it was thought for awhile he was dead, and it was suggested that a physician be sent for. He was, however, finally aroused.

It was decided that a preliminary examination of the prisoner should be had in the forenoon, and he was accordingly taken to the room of the Commissioners. He, however, did not appear to see any one, but seemed like one walking in his sleep or in a dream. His face was swollen and puffed, and he would from time to time rouse up from his state of stupor, and putting his face on his hand, cry like a child.

It was finally decided that he was not in a condition to be put to plea, and the case was postponed for a few days, or until he should be in an improved state of mind.

It is said that while on the way to the jail in the wagon, he said to the officer sitting by his side, "I'll do up some more of them yet." The officer replied, "You don't mean me, do you?" "No," said Duff, "Mike, I have no grudge against you."

The brutality of this double homicide; the coolness with which the man acted, before and during and after the tragedy; and the fact that he had been known for years as such a quarrelsome husband that his wife could not at any time live with him except for short periods, make this a case worthy of some study.

D— is about forty years of age, a native of Connecti-

cut, though born of Irish parents. He learned the trade of machinist, and was regarded as a good workman. He is said to have been quick-tempered from boyhood, nervous, changeable in purpose, not easily controlled, and at times very irritable. He has one brother and three sisters, all living. The brother showed indications of insanity when fifteen or sixteen years of age, and after some months was taken to a hospital for the insane, where he has been ever since. The three sisters have never had any unusual illness. The mother died at fifty-three from pneumonia. The father became paralyzed at sixty-three and is in this condition at the present time. D— learned the trade of a machinist and worked at it irregularly for several years, in the meantime living in his father's home. He was employed in one of the shops in the city until about twenty-five years of age, when he suddenly left home without giving any reason, and went to a neighboring city, where he secured work at his trade. While there he boarded with the mother of the woman who afterwards became his wife.

The next day after the homicide he was seen by a physician, and found to be taciturn and morose. He attacked the officer who undertook to lead him from his cell. The doctor did not succeed in inducing him to talk, and was inclined to think he was feigning insanity.

He was seen by another physician at the room for prisoners at the court house, and on the day that an indictment had been made against him by the grand jury. He appeared very nervous, and was standing directly under the gas-fixture of the room. Instead of paying attention to the physician he reached up and turned the valve of the fixture, as if he expected the escaping gas would light itself; they were then requested to go into another room where they had scarcely become seated when D— jumped from his chair and excitedly requested

the two officers present to leave the room. After being assured that they would not hear anything he might say, he resumed his seat. A few remarks of a general character were made, with a view of diverting his attention, and then some general questions, relating to his history, place of birth, age, family, etc., were addressed to him. These matters prepared the way for questions relating to his marriage, his children, and particulars in relation to his wife. He was then evidently ready to talk freely and made a statement covering his life since he knew his wife, which may be somewhat condensed and reported as follows:

He said his trouble began before he was married. He went with his future wife to New York and lived there with her some time as his wife. Her mother, who lived in a distant city, secreted a detective under the bed which they occupied the first night, and this detective afterwards told other parties how he had "defiled" the woman. After a while her mother came down to New York and insisted that they should visit some of her family living in the city, and he was introduced to them as the husband of her daughter, though it was not true. He was, however, persuaded afterwards to marry her, and he did this to remedy as far as he could do so, the injury he had done her. But from the first "she was always running after other men," and he "could never trust her."

This general state of domestic affairs continued for some years, and gradually became worse, so that persons in every shop where he worked talked about her so that he thought he heard them, and he could see by their conduct that they understood her character.

He finally decided, after many quarrels and separations on account of her suspected infidelity, to enlist in the navy, so as to get where no one would know him. When he was examined by the surgeon he heard him say to

his assistant: "That is just such a skull as the doctors like to get." He repeated that he heard this as clearly as he had ever heard anything in his life. He was accepted and sent to the ship "Petrel" at Hampton Roads, Norfolk. He, however, got into trouble within a short time with the sailors on account of their talk about his wife, and heard that he was to be sent to an insane asylum at Washington. He says he prevented this by writing to the Secretary of the Navy about what they were planning to do. The result was his discharge, and the record of his case shows that the cause was "dementia." He then decided not to return to his family, but to go farther West where he was unknown. In Ohio he secured work in several places, but his wife and her mother in some way always found where he was and informed the workmen about him. At Cleveland he succeeded better and planned to send for his wife and children, but she immediately informed the men in the shop about it, and he began to observe that they looked at him in a very suspicious way; so this plan was given up.

He then returned to New England and secured work in a large number of shops in different places, but always with similar results. He was always getting into quarrels and trouble with the workmen about his wife. She tried to live with him from time to time, but could remain only for short periods. At one place he says he hired a house and made arrangements to have his wife come and keep house. She was to come on the evening train, but when he went to the shop in the morning he found that the men knew all about her coming and he saw them making motions to each other; they were laughing at him, and he was sure they were going to make him trouble. He went to the station for her, and on arriving there saw the men waiting on the opposite side of the road for her and she seemed to know them. When asked how

they could know about her coming, he excitedly replied: "How could they know unless she had told them? I didn't."

He then gave up the house and went to another town where he secured work, remarking that the places were becoming very few in New England where he had not worked. Here he had similar experiences and quarrels with his fellow-workmen about his wife. He heard voices indicating plans between his wife and the men of the shop, and also that they were conspiring to get him put in an asylum, where he would die or be murdered so that the doctors could get his head. He said that a large sum of money had been offered for it. It appears that his wife visited him and spent a day or two with him about two weeks prior to the homicide, with a view of allaying his suspicions, which were the result of his hallucinations. This was of no avail, and the voices finally drove him to the homicide, it being his firm conviction that there was a grand conspiracy against him, of which his wife and her mother and some others were the prime movers.

The form of derangement in this case is that of delusional insanity, or, according to some authors, paranoia. It is from this form of insanity that homicides more often occur. It was formerly called monomania, because the delusions revolved around one, or a few allied subjects. In the present case these delusions and hallucinations related almost entirely to the marital infidelity of his wife, and gave rise to their quarrels and separations. It is, however, asserted that there existed no cause for these suspicions, that she was a person of good character; and he admitted that he had never actually known of any of her illicit relations with other men, but he said this was due to her great caution and shrewdness in concealing it. The evidence of her conduct came to him from what he heard and saw of the parties with whom he suspected she was intimate.

It is not often that we can obtain so accurate a history of the antecedents in cases of homicide as has been possible in the present one; and we are therefore able to trace quite clearly the development and growth of the delusion or delusions which constituted the essence of his insanity, and finally led to the homicide.

It has already been stated that D— was, as a boy, changeable, irritable, nervous, and not easily controlled. It further appears that at times he was silent and self-absorbed; that he did not associate very freely with other boys of his own age, or even participate in their games. During adolescence he had periods of being depressed and would shed tears without any special reason. Here, then, we have a brain of a somewhat abnormal character to begin with. This may have been the result of intra-uterine or infantile experiences, or it may have been from heredity. The fact that his only brother became insane at fifteen years of age would indicate the probability of this latter element of etiology.

It is in brains of such a character that we find the soil for delusions of a systematized and fixed character. They are usually impressional, and ordinary experiences often produce an abnormal influence both as to degree and permanence. A single concept having once arisen in the mind from new sensations or experiences, it is likely to increase in importance. As it is reflected upon, other elements are added which have some relation to it, until gradually a belief has become established which has very little real basis of fact. Delusions constitute one of the most important elements of insanity, as they arise from a derangement of the purely psychical centers of the brain, and in some cases are the chief indication of disease.

The subject matter of insane delusions will depend primarily upon the quality of the brain tissue, and secondly, upon the character and experiences of the individ-

ual. They are rarely, if ever, wholly the creations of the personality, but rather are the outcome, under abnormal forms, of some of the past registered experiences which have produced a profound impression on the brain. When the individual has had little discipline from education and the early conditions of life, the delusions are constructed of simple elements, and generally are limited in character, referring to some single subject. When the person has passed through the mental training incident to seminary or college life, and has been familiar with books and the study of the thoughts of other men, the character of the delusion during its development may and often does take on a wider significance, and frequently covers a wide field of imaginary occurrences.

Again, in persons of sanguine temperament, the delusions will almost always partake of this character, and are of an expansive and exalted type; while in cases predisposed to a depressed state and introspection, the delusions more often relate to imaginary diseases and disordered sensations, and the person is inclined to picture in dark colors his relations and experiences with others. Not infrequently when persons have been deeply impressed during the period of youth with lessons relating to justice and the punishment of sin, the form of delusion will take on a religious type.

It is rarely the case that we are able to determine the exact time when the delusion was first projected into consciousness, or that it was formed suddenly. As a rule it is not so formed. It is only as one element of experience is added to another, or new sensations arise in the brain to confirm previous ones that the morbid idea becomes fixed.

In the present case, however, we can almost surely indicate the time and occasion which gave rise to the morbid delusion, and the experience from which it was

occasioned. This was when he spent the first night in New York with the woman who afterwards became his wife. He stated very clearly that it was at this time that the mother secreted a detective under the bed which they occupied.

It appears that he had been religiously educated, was a member of the church, and that his habits of life had as a young man been regular and of good character, and when he came to realize the nature of his conduct in taking from her home the young daughter of the woman who had received him to her house, and cohabiting with her, he was much disturbed. He began to think that others must be aware of what he had done, and when he visited her friends, suspected that they were aware of his assumed relations, which was not true. When questioned he said that he recognized very keenly the wrong he had done the woman, and was ready to atone for it by marrying her.

But so far as he was concerned the mischief had been done. He soon began to reason that the conduct of his wife towards other men might be of a similar nature to that which it had been towards him, and according to his own statement, he never was free from this suspicion; it became a fixed and profound conviction with him, though he admitted that he had no positive ground for it.

In process of time the auditory centers of the cortex became deranged, and he had hallucinations of hearing. He began to hear voices which he connected with his delusions, and which confirmed his suspicions. They became so numerous and constant that he could not long be associated with his fellow-workmen without a quarrel, which frequently ended in violence and his discharge from the shop. As his hallucinations increased they began to relate to other matters. His head was wanted by the doctors, so that a large price was offered for it.

The Knights of Labor became interested to such an extent that the members in all parts of the country were informed of his case, and word was passed from State to State. The delusion finally culminated in the belief that there was a grand conspiracy against him. He had been driven from one shop to another to obtain employment from Connecticut to Missouri, until there were few where he had not worked. He was then soon to be confined in an insane asylum where it would be easy to obtain his head. He must therefore defend himself, and the surest way to accomplish this was to put out of the way his wife and her mother, who were the prime cause of this great conspiracy. It appears that he had for some time been accustomed to carry a pistol with which to defend himself, and no less than two had been taken from him at different times. He had carried the one used for the homicide but a short time.

The above case is especially interesting in another respect, that is the judicial disposition of it.

The two physicians, one for the State and the other for the defense, examined the prisoner together, and afterwards compared their opinions as to his mental condition. They agreed that the man was then and for years had been insane. In view of this fact, the physicians were invited to confer with the Judge, the State Attorney, and the counsel for the defense, and were permitted to state that they regarded the prisoner as undoubtedly insane. They were then asked if in their opinion he was of sufficient intelligence to understand the meaning of a plea to murder in the second degree. Both physicians answered this question in the affirmative, and were then given leave to withdraw. Two days afterward the prisoner was put to plea, and by the advice of his counsel plead guilty of murder in the second degree. He was thereupon sentenced to State Prison for life.

SOME REMEDIABLE FORMS OF STERILITY.

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Without any attempt to review, abstract or epitomize what has been written upon this subject, I will endeavor to present for your discussion a few points that have occurred to me from my own experience. The propagation of the species is probably the strongest of all instincts. Anything which interferes with the consummation of that purpose is not only abnormal, unfortunate and pitiable, resulting in the prevention of natural desires, propensities and ambitions, but also presents a barrier to the fulfilment of our Creator's first command, "Be fruitful and multiply." There is no greater service that the physician can render to his fellow and his God than in correcting these abnormal conditions which prevent the multiplication of our kind.

Our time will not permit us to consider all the various types of sterility which present themselves for our advice and treatment, but only to pass in brief review a few of those forms which, being more readily or surely relieved, seem to return us the greater rewards for our labors. Success is reassuring; and consequently that work which is the most successful and fruitful in tangible results, is the most interesting, although it may not be the most scientific or skilful.

CAUSES.

Of the many causes of sterility which might properly be termed remediable, we will at this time take into consideration a few of those which are the most common.

Some of these are slight and seemingly out of all proportion to the effect produced and yet their removal

easily and readily accomplished is followed by a cure of the condition; as in an imperforate hymen or one in which the carnnculae myrtiformes are so exquisitely sensitive as to prohibit coition; where under local (cocaine) anesthesia, complete dilation by means of graduated sizes of specula, incision first being employed if necessary, will effect a cure.

The entrance to the vagina being pervious and not over-sensitive affords an opportunity to examine the cervix, when a condition similar to the following may be found:

Case 32.—Mrs. N—aet. 32; married two years; upon careful inquiry could elicit no evidences of anything abnormal except a slight dyspepsia. Her menstrual life began at fourteen, recurred regularly, was not very large in amount, continuing three or four days with but slight disturbance. Has some leucorrhea occasionally. A vaginal examination demonstrates a slightly enlarged cervix, a rather open os containing increased secretions. This slight catarrhal condition of the canal was sufficient to prevent conception. Hot vaginal douches, containing borax, and a regulation of coition were sufficient without further treatment to cure the catarrh and there was then no impediment to conception and her sterility was cured.

A similar condition often occurs where a catarrhal endocervicitis follows miscarriage or parturition as in

Case 126.—Mrs. S—aet. thirty; married four and one-half years (Mch. 12, '93); complained of sterility; unable to carry child to term or till viable; has had two miscarriages. The last at about seven months (which lived eight hours) occurred three months ago. While carrying she menstruated regularly. Menstrual life began at fourteen, recurs regularly every four weeks in considerable amount, lasting for four or five days and is not attended with much pain. She has considerable pelvic

pain, too free menses and leucorrhea. Examination showed an hypertrophied and congested posterior lip of the cervix, endocervicitis and retroversion. In this case little attention had been given to the hygiene of the sexual organs. Simple treatment to relieve uterine engorgement (hot douches) with tampons to afford rest and recuperation to the uterine supports and advice concerning times and frequency of copulation and also directions respecting lifting, straining, reaching, etc., when next pregnant, were sufficient to effect a cure. In this case there was an hypertrophied and congested lip of the cervix corresponding to a retroversion which was undoubtedly the first cause of both the cervical conditions as is usually the case where any version or flexion, especially the latter, exists either at the neck or in the body of the womb.

A lacerated cervix will sometimes appear to be the only cause for relative sterility and this condition being corrected, especially if at the time of operation the endometrium is carefully treated by curettement, and appropriate applications of carbolic acid, iodine, perchloride of iron or some other agent, the patient will be restored. In these cases, however, it is probably due more to the catarrhal condition resultant than from the impairment of the integrity of the parts that sterility exists; since we find cases of severe laceration in which there does not seem to be enough of a cervix to retain the products of conception within the uterus that will, after all, repeatedly perform that office adequately and to our great surprise. This brings us to a consideration of these catarrhal conditions of the cervix, body and tubes which lie at the bottom of so many of these unfortunate cases, and many of which do not properly lie within the limits of this discussion because irremediable. Those which are due to anemia or other depraved general conditions may by general hygienic and constitutional means be

remedied. Some by topical treatment and sexual rest can be brought to a normal condition and be persuaded to accept the functions which devolve upon them, but others disappoint our prolonged, patient endeavor and refuse to be coaxed, cajoled, led or driven to perform their share in the process of fecundity.

Erosions of the os may be the cause of a catarrhal endocervicitis which will disappear when the erosions are cured. Fungoid growths not only by themselves, but through their presence causing endometritis may require thorough and radical removal.

Flections of the uterus are a very common cause of sterility; such malposition being a direct cause of diseased conditions which follow the congested state sure to attend upon them; treatment in these cases being especially directed to the reduction of the attendant inflammation, correcting the deformity and thus preventing the congestion which accompanies menstruation and keeping the parturient canal pervious to allow the entrance of the fecundating element. This class of cases is well illustrated by

Case 30, retroflection.—Mrs. P—, aet, twenty-six, married two years; first seen Nov. 12, 1888, when she complained of frontal headache coming on irregularly and lasting a variable time, always following any extra exertion; suprapubic pain at periods from earliest remembrance, and often accompanied by faintness. Catamenia began at thirteen; always recurs every four weeks; the amount is considerable, continuing for four or five days and attended with much pain, the amount of pain corresponding to the time of flowing; never pregnant. Defecation very irregular, requires laxatives most of the time.

Examination shows the uterus somewhat low and enlarged, less mobile than normal, consistency increased,

retroverted and retroflexed, the os open and posterior lip eroded.

I treated the erosions and relieved the congestion and inflammation of the uterus by local applications of iodine, boro-glyceride, tampons, hot vaginal douches and attention to the bowels. When the uterus became more mobile, massage, tamponment and pessaries were used to replace and keep the uterus in position; faradization was employed to improve the tone (vaginal bipolar, vagino and utero-abdominal and bipolar inter-uterine), with satisfactory results. At first the patient was seen every two or three days, later every week, until in September, 1889, nine months after the beginning of her treatment, she had the most comfortable menses in her recollection. The general plan of treatment was continued, a pessary (Emmet's) being worn most of the time until in the summer of 1890 she became pregnant, and in due time was delivered of a strong, healthy boy.

Here was a case of congenital malposition aggravated in symptoms by the exceedingly sensitive nervous organization. Such cases rarely improve if left to themselves, but offer fair hopes of cure under careful, painstaking, persistent, mild measures of treatment.

These cases are scarcely ever simple, but complicated with other lesions, closely or remotely associated. In the following case the attending ovaritis was probably caused by the retroflection, but added its distinct elements in symptoms which were very annoying as well as painful.

Case 44, ovaritis and retroflection.—Mrs. S—, aet. twenty-two; married four months, complains of sacral pains with frontal and occipital headache. Menses began at nineteen; two years previously had been in poor health and subject to daily attacks of nose-bleed; it recurs every month regularly; is considerable and increasing in amount, for five days usually but recently

rather less, about three days, and attended with considerable pain.

Upon examination the left ovary was found to be excruciatingly sensitive; the mobility of the uterus was impaired, sensitiveness and size increased; there was a marked retroflection and a tense inflamed condition of the cervix, the congested blood-vessels standing out in bold relief. A general tonic treatment with local applications of iodine, boro-glyceride, tampons and antiseptic (carbolic) douches and suppositories of belladona and iodoform relieved the ovaritis and congestion of the cervix, resulting in allowing a more natural condition, a comfortable catamenial period and allowed copulation, which before could not be borne on account of pain, and in due time, after a normal pregnancy, she was delivered of a twelve-pound boy. In this case sterility was induced by the hypersensitiveness of the generative organs and the profound disturbance of the entire nervous system, which in turn were undoubtedly due to the retroflection.

Where displacement has continued for a long time and repeated congestion has influenced an inflammation extending to the periuterine structures, we have a more complex condition to deal with, and one requiring the utmost patience, perseverance and concord upon the part of patient and physician, a good illustration of which is found in

Case 249, retroflection and cellulitis.—Mrs. D—, aet. twenty-six, married six months; November 29, 1895, complained of irregular menses (thirty to forty-two days), averaging five weeks lately, and attended with nausea and retching, during the first day. Is a tall brunette, of fair general appearance, bright, quick and alert, nervous when tired and inclined to be morbid. Has strong maternal instincts.

Menses began at fourteen, recur every four and one-

half to six weeks, in considerable amount, somewhat clotted and continuing usually seven days. No bad pains but feeling of discomfort during entire period. Has some leucorrhea. Is constipated, having defecation every two or three days. When twelve years old had a severe fall upon her back. Was a regular "tom-boy."

Examination found Douglas' cul-de-sac almost filled with exudate, including uterus and both broad ligaments, it being impossible to differentiate the parts bimanually, but by means of a sound the uterus was found to be retroflexed and displaced to the right, the cervix looking backward also, making a quite acute flection.

Treatment was directed towards the absorption of the inflammatory products and adhesions by means of massage, iodine, ichthyol, boro-glyceride, atrol; by posture, and tampon and douches. The hardness was gradually reduced when massage could be used to greater advantage and with the practice of the genu-pectoral position greatly assisted in rectifying the position and shape, which were retained by means of proper tamponment. Great care had to be exercised, since there was a manifest tendency for inflammatory action upon the least provocation. Graduated steel dilators were used to assist in overcoming flexure in the canal and to increase the size of the os cervicis. Careful attention was given to the general condition and directions for regular baths, exercise and the performance of the bodily functions were intelligently followed by the patient, together with appropriate medication at different periods as seemed to be indicated. This course was continued for a year and a half (with steady though slow improvement) when our labors were rewarded by conception, and she is now a happy mother.

The cause of the conditions which existed in this case were undoubtedly due to the fall upon her back when

twelve years of age, which produced the backward displacement of the uterus and provoked an inflammation which so seriously involved her chances of fertility. I entered upon the treatment of this case with much trepidation and a rather unfavorable prognosis that with mutually persistent and faithful endeavor, the conditions might be overcome. Her strong desire to become a mother was of the greatest aid in the conduct of her case.

A similar condition in an earlier stage of development showing the marked advantage in early attention of the time required to overcome them is shown in

Case 166, peri-uterine cellulitis.—Mrs. F—, aet. twenty-two; married five months; was first seen October fifteen, 1893, and complained of painful coitus; pains in pelvis with general weakness, being unable to lift anything; inability to retain semen; catamenia once at thirteen years, then not at all for two and one-half years; then every five or six months till married, but every four weeks since; amount small, continuing for two days. Has some leucorrhea, yellow, thick. Examination shows diminished mobility, increased sensitiveness, the uterus being about normal in size, but closely attached to the right side of the pelvis. The cervix appears in speculum; from the right side the os is small and contracted and the canal has a sharp flexure in which position it is held by adhesions.

Treatment in this case was begun with boric acid insufflation, glycerine, belladonna and iodoform tampons and boric acid douches. This was followed by applications of Churchill's tincture of iodine to vault every three or four days with the same tampons and $HgCl_2$ douches, using a suppository of aristol (gr. iij) each night.

Massage as soon as the sensitiveness was relieved resulted in overcoming the adhesions and bringing the uterus into a more normal position. Graduated steel dilators were then used to dilate the os and straighten

the canal. The following month menstruation was more natural and was the last she had till after her child was born the following summer.

SYPHILIS.

In so incomplete a paper even as this, one would hardly be justified in omitting to mention SYPHILIS AS A CAUSE OF STERILITY.

This disease so malignant and yet so often maligned and used as a cloak to cover inability to correctly diagnose obscure conditions, must be held accountable for a considerable number of cases and the diagnosis must sometimes at least be arrived at by exclusion. Syphilis differs from those conditions which we have already considered, in that while they are local and largely mechanical, it is general and specific. Its treatment also is medicinal and systemic, and our prognosis may be considered favorable as regards sterility, even in cases of apparently serious import. Of these cases, a large number readily conceive, but seem to be unable to retain the products of conception to the period of viability as in

Case 242, syphilis.—Mrs. F—, aet. twenty-one; married three years, September thirteen, 1895; complains of being unable to "carry" to viability; has had three miscarriages, first at six months, second at six months and three weeks, there being no life during last three weeks; third, eight months, no life felt during last week. Has pain in right ileo-inguinal region.

Menses began at twelve, recur every four weeks, about right in quantity, and continue seven or eight days and are not attended with pain. Feels well and looks strong, is of full habit and is easily excited. Examination reveals no abnormal condition. Her mother has had three miscarriages and fourteen labors; some children died in first week, six now living; youngest has cleft palate.

This history with the tell-tale Hutchinson's teeth, sug-

gested syphilis as the cause of her trouble. She was placed under continued specific treatment, was advised respecting hygiene, etc., and Oct. 16, 1896, was delivered of a large, strong, healthy-appearing boy.

It is more difficult sometimes to treat successfully these cases and secure the continued coöperation of the patient, because they need not report so frequently and are "only taking medicine." The best way, it seems to me, is to emphasize the importance of the treatment to the patient so that she shall thoroughly understand the full significance of any deviation from the prescribed course of procedure and dispense the remedies yourself, giving only sufficient to last for a stated time, and requiring a return at that time for further directions. In this way and by varying the form in which the remedy is used, our chances of success are more favorable.

I will not at this time attempt to take up any of the other forms, but in closing remark that, as sterility is a condition rather than a specific disease, and is dependent upon so many different conditions or the proper fulfilment of so many functions, its study embraces all the disorders of these various functions and conditions, and its treatment consists in ascertaining which functions are at fault, in what way they are so, and then correcting those faults and restoring them to their normal conditions. This, as has already been said, may sometimes be easily found and simply remedied, while again the cause may elude the most painstaking care and study, and all efforts to cure be unavailing. There is therefore in its study, an opportunity to concentrate the highest exercise of diagnostic ability, both in a general way respecting the constitutional causes, and also in the more limited field of special application of gynecological knowledge and experience. In fact, as any and every deviation from the normal condition of the sexual organism in woman, and to be sure, in man

as well, may determine sterility, its study should include the whole art of gynecology and also of the diseases peculiar to men. Under such a broad claim, we would soon find ourselves embracing the entire field of the practice of medicine. But I do not propose to ask you to cover this field with me, but rather to stimulate your endeavor in determining the cause for the small number of children in the families under your care, and to provoke your consideration of the means to be used to correct these causes. For various reasons we find a husband and wife living together a long married life without issue. It matters not whether they are desirous or not of offspring; such a condition strikes us at once as being abnormal, and we instinctively attempt to reason respecting its cause and if we have the true spirit of the physician, are desirous of rectifying the wrong. If however, our services are not sought with this end in view, we have some delicacy in making any effort in that direction, since individual liberty has obtained so strong a foot-hold within the popular mind, that we find a great many claiming and endeavoring to substantiate by argument and invective, that each one shall be a law unto himself in these matters, i. e., that each individual husband and wife shall decide for themselves whether or no they shall have children. Here the treatment is moral, and I believe the physician should take the highest ground that barrenness and unfruitfulness in the highest order of creation is more to be deplored than in any other. In so preaching, however, it is essential, in order that we shall sustain our theories, that we are so prepared to practice our profession, as to overcome as far as possible, all pathological conditions which interfere with fertility and render them physiological.

PUERPERAL ECLAMPSIA.

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The uremic manifestations of pregnancy, together with the parturient and puerperal states constitute eclampsia. Lusk gives a concise definition when he asserts that "Eclampsia is a term applied to convulsions, tonic and clonic in character, the foundation of which is laid in processes connected with pregnancy, labor and child-bed." Cerebral tumor and other cerebral lesions may be co-incident with pregnancy, but not dependent on it.

For convenience all uremic manifestations may be grouped into two classes, acute and chronic or more accurately sub-acute. With Delafield we consider acute uremia an arbitrary distinction, but find it difficult to suggest a better term. By it we mean uremic storm. There are no prodromic symptoms; suddenly the secretion of urine is diminished or suppressed, the elimination of urea is greatly diminished; the urine is loaded with albumen; there is high arterial tension; there may be also nausea and vomiting; convulsions occur and re-occur with rapidity, followed by coma, and unless increased elimination of urea with an increased quantity of urine is speedily obtained, the case ends fatally.

Chronic uremia designates those cases where there are weeks or months of premonition. The urine may not be decreased to any great amount; loss of albumin may be slight or considerable; there is usually some edema. These symptoms may exist up to term, but the explosion does not develop; labor occurs and the patient usually recovers without further uremic manifestations. If, however, delivery is not followed by marked improve-

ment, the case will probably become a chronic Bright's disease.

Symptomatology.—As actual occurrences, the symptoms of acute uremia are too familiar for more than mention. The clinical ensemble of uremia is a picture by itself. Before the onset of a convulsion, we have a certain facies, fixed eyes, contracted pupils, cupping of iris, followed by rapid movements of the eyes and eye-lids, rolling upward of eyes with a now dilated pupil with loss of sensitiveness; rolling of the head, drawn mouth, convulsive twitching of muscles beginning in the face and in order proceeding to upper extremities, lower extremities, trunk, diaphragm and respiratory muscles. The carotids are full, hard and pulsating, the jugulars are swollen. There is cyanosis, intermittent pulse, stertorous, irregular breathing. The long duration of the convulsion, the succeeding coma, with or without previous knowledge of albumin in the urine, together with the swollen features, hands, feet and legs of the patient, added to a certain color of the skin, a cross between the straw-color of pleurisy and the milk-white pallor of chlorosis give eclampsia a clinical "personality." It stands out indisputable; at once recognized.

Symptoms requiring special mention are the premonitory headache, epigastric pain, impairment of vision, albumin in the urine, all of which are most decisive and demand prompt and persistent effort for their relief, as also the symptoms of the attack, viz.: the convulsion, the coma, suppression of urine, continued albumin.

The premonitory headache is excruciating, localized usually over one eye, or sub-occipital, although it may be a general headache. The significance of epigastric pain is not sufficiently recognized. It has passing mention by Cazeau and Lusk, but Leishman only, so far as I am aware, accords it a prominent place. (In the first case of eclampsia it was my misfortune to care for, there

had been most violent recurrent gastralgia for more than a week before the actual development of the convulsions. The urine had been daily examined with negative results; there was no edema, no visual disturbance. The pain was most difficult to relieve and with its apparent relief and subsidence, there was an outburst of twenty-seven convulsions in four hours.)

Impairment of vision.—The visual disturbances may occur at any time during the gestation, but are more frequent in the latter months, and at the time of labor. They may be variable, from slight specks floating before the eyes, to a general cloudiness, gradually deepening to complete amaurosis, or the amaurosis may be sudden and complete, which is usual when it occurs at labor. Both eyes are equally affected as a rule.

Albuminuric retinitis is always a grave complication and must be interpreted as saturation of the entire system with uremic poison. The lesion is not distinctive, neither is it permanent in uncomplicated uremic amaurosis.

As to recovery of vision the prognosis is fairly good, if the constitutional toxemia is promptly relieved, provided the kidneys were healthy up to the beginning of pregnancy. The possibility of a pre-existing renal parenchymatous metamorphosis must not, however, be overlooked in giving a prognosis.

American and English writers differ as to the recovery of vision and also recovery of patient having uremic retinitis. Duncan of London speaks of recovery of two patients with perfect vision, where the uterus was emptied as a most remarkable event. In his opinion patients with albuminuric retinitis usually die. Pooley, Gruening and other American opthalmologists are emphatic as to the probable recovery of vision in all cases where the uterus is emptied, and consider

amaurosis, partial or complete, to demand induced labor even when it is the only symptom of uremic poisoning.

Albumin in the urine.—Albumin in variable amounts is present as a precursor of uremia in the majority of eclamptics, although it is not always prior to the eclampsia but is developed with it. Persistent albumin however slight, is always a danger signal that calls for investigation of the patient's hygiene, her nutritive metabolism, functional activity of the kidneys, integrity of her circulation. If the urine is abundant and no casts, the albumin may be the only symptom we have. It gives no trouble and disappears after the labor. It is, however, abnormal to the pregnancy and the case must be carefully watched. It is not improbable that in these cases the albumin is not serum albumin. Where there is much abdominal pressure there may be paraglobulin rather than albumin in the urine, which would account for the little trouble in this class of cases which we hear spoken of as cases of "pressure albuminuria," or the "functional albuminuria of pregnancy."

Let us pause here to ask what is the albumin found in the urine? Dr. A. H. Smith states "There is no definite atom for albumin; that it is always a product of vital activity; that it is never found in dead matter; cannot be synthetically produced; material taken into the body not as albumin becomes albumin and passes on to the tissues; that it is constantly changing while it is albumin." He further states that "normal urine agitated with one-third of its bulk of ether, will form a dense gelatinous substance, slowly rising to the top of the tube and becoming a plug so dense that the tube can be inverted. This plug is not completed serum-albumin, but somewhere albumin has found a right-of-way to the kidneys."

We know that excessive uric acid in the urine, means a breaking down of the nuclein of the cells. The place

of the production of uric acid has been the subject of much investigation. At the French Medical Congress of 1896 Laval asserted that the liver, spleen and the white blood-cells were especially active in producing uric acid, although other organs participated to some extent.

In pregnancy the nervous system of some patients is in such a depraved condition before the initiation of the pregnancy that it receives thereby a burden greater than it can carry; cell appropriation is perverted and the blood-stream does not normally part with its liquor sanguinis and comes to the kidneys surcharged with incomplete effete material and sub-oxidation products. Serum-albumin then appears in the urine and we have albuminaria. While we may have various albumins in the urine we have not ready means for their distinction.

The statement of Dr. W. H. Porter of New York is interesting and conclusive. He considers "That the albumin of Bright's disease is not the result of the transudation of non-diffusible proteid substances through the blood-vessels of the Malpighian tufts but is the result of incomplete oxidation of the proteid molecule and is given off by the renal epithelium as a by-product or derived albumin instead of the ordinary completed products of urea, uric acid, and creatinin which represent body-oxidation."

The simple presence of albumin is not diagnostic but associated with any one or all of the symptoms, headache, epigastric pain, and impairment of vision, it would be impossible to over-estimate its significance. The amount of the albumin is also of moment, for the greater the amount of albumin in the urine in all probability the greater must be the retention of urea; and, the more retained urea means systemic poisoning which again means with slight exception uremic explosion, in other words "Eclampsia Gravidarum."

Icterus is sometimes erroneously spoken of as idiopathic

in pregnancy; the appearance of jaundice demands repeated examination of the urine for albumin and casts. Casts should be sought for in urine which does not contain albumin. It should be our routine to look for casts in the urine of all pregnant women with as much frequency as we examine for albumin. The known presence of casts would enable us to forestal and probably avert eclampsia. Heller's cold nitric acid test for albumin is more delicate than nitric acid and heat; Speigler's test is useful and also that of sulpho-salicylic acid; the latter consists of adding a saturated solution of sulpho-salicylic acid to the suspected urine; if it contains albumen it will immediately throw down a white, homogeneous precipitate, which cannot be redissolved by boiling. A small amount of albumin may only make the specimen cloudy; a great amount of albumin will give a flocculent precipitate. It is said to detect one part of albumin in fifty thousand parts of urine. The dry crystals can be used as a ready bed-side test.

Etiology.—The etiology of eclampsia is still a mooted question, but the theory of auto-toxemia or blood-poisoning appeals most to the modern physician, and is supported by the greatest clinical evidence, while the theories of reflex-neuroses, and of renal lesions are not at this time largely accepted. The reflex-neuroses theory does not cover all cases, and it is equally true that the kidney idea leaves out many cases to be accounted for by some other hypothesis. Let us briefly ask how this toxic condition is produced. The initial spark is to be found in "control centers" of the nervous system. Pregnancy is physiological, but it is a new physiology engrafted on the system, and a dual process is established. In some highly impressionable nervous systems, this amounts to a certain degree of shock; in carrying on this duplex condition there is a heavy demand on the nutritive forces. In case the demand is too great there

results a disturbance of the equilibrium of nutrition. As Ralfe says "an altered percentage between nutritive and effete material."

If the mother was in previous good health the demand will be met and the process remain physiological; but, if the mother was in previous uncertain health, the nutritive metabolism becomes to a certain extent pathological. She has digestive disturbances; the liver loses its control and becomes a probable source of toxins, although the toxins probably have their origin in the ingesta, intestinal putrefaction, or fetal metabolism, one or all; elimination is sluggish or impaired, and the blood reaches the kidneys surcharged with the products of incomplete oxidation and the work of excreting this plus amount of solids, overpowers the renal epithelium with resultant casts in the urine. We have now a vulnerable kidney. Soon albumin appears in the urine which seriously invades the blood integrity; a general condition of tissue mal-nutrition ensues. The resistance in all tissues to morbific influences and impressions is diminished and there also seems to be in the blood some element especially exciting to the cerebral and spinal centers.

Beverly Robinson and others aver that this excitant is no longer believed to be carbonate of ammonia or urea, but a complex poison; the effects of this complex poison we term uremia, whether acute or chronic.

Bouchard has isolated at least seven toxic substances from normal urine: "(1.) A diuretic substance (urea); (2.) a narcotic poison; (3.) sialogogue; (4.) a temperature-reducing substance; (5 and 6.) convulsants, one of which is probably potassium; (7.) a poison which contracted the pupil."

Lusk lays stress on dilation of the ureters in consequence of pressure of the gravid uterus. The flow of urine from the kidneys to the bladder is thereby retarded; the ureters may become tortuous, there will be rectro-

stasis of urine with probable absorption and resultant uremia. He emphasizes the statement, by statistics of thirty-two fatal cases; in eight of these cases dilated ureters were found.

Peripheral irritation from malposition of the fetus does not play a conspicuous part in the etiology of uremia, for most cases of eclampsia are associated with head presentations.

Rapin and Monnier of Nantes claim a bacillus in the blood of eclampsia; a dumb-bell bacillus, the central portion staining more deeply than the ends by Gram's method.

Bayard Holmes of Chicago stated at the American Medical Association that normal urine is not toxic when subcutaneously injected; the urine of a known nephritis, however, when so injected will produce uremic convulsions which are usually accompanied with a nephritis. He considers uremia as nearly always due to bacterial thrombosis and embolism.

Strumpf attaches importance to acetone in the urine, but adds that as yet the value of acetone has not been sufficiently developed to be generally accepted. The breath of the patient will smell strongly of it. The presence of acetone ($C_3 H_6 O$) is indicative of hepatic disturbance. Acetone results not from ingested proteids but from katabolism of organized tissues. The products of metabolism of mother and fetus are carried by the portal circulation to the liver where they are changed to urea and bile salts. If the liver is overcharged with these products, it becomes inadequate for their elimination and eclampsia may be the result.

Carl Schroeder has summed up the etiology of convulsions so concisely that I briefly give his conclusions. Schroeder reasons, that experimental epilepsy is only produced by ligation of the arteries at the base of the brain and that the resultant cerebral anemia is the prob-

able cause of the convulsions. How is cerebral anemia produced in uremia? He asserts by vasomotor spasm of blood-vessels at base of brain, and supports the proposition, "(1) by inability to prove existence of cerebral anemia in any other way; (2) sudden onset of convulsions and rapid restoration in the interval; (3) negative results of autopsies; (4) effects of remedies that cause dilation of the brain."

As causes of vasomotor spasm we have "(1) a plus state of excitability of the nervous system in pregnancy, parturition and the puerperal period; at these times the vasomotor spasm will occur and not at other times; (2) the vasomotor center is more irritable, especially during labor, the time of the greatest frequency of convulsions; (3) predisposition of the nervous system in general and the vasomotor centers in particular to toxic states of blood of pregnancy will be sufficient explanation of eclampsia."

Treatment.—Before considering the treatment some general considerations will be of value. The character of the convulsion which involves the entire body is tonic and clonic and of long duration, varying from three to five minutes. The coma is variable and out of ratio to the number and violence of the convulsions; the latter are often absent or overlooked, and uremic coma may be the first symptom. Patients will recover speech and recognize friends before the return of memory. Memory will often return very slowly and will then recall only the "dreadful headache," all other features of the attack being mercifully unknown to them.

The time of greatest frequency of a seizure is placed at term; out of three hundred and sixteen cases collected by Schroeder one hundred and ninety occurred during labor; sixty-four after labor; sixty-two during the pregnancy. Cazeau reports one case occurring as late as the twelfth day after delivery; in these latent cases a

renal lesion older than the pregnancy is the probable explanation, or a vulnerable kidney during the pregnancy, which, while no trouble developed during labor, it had in some way been sufficiently damaged to remain permanently vulnerable.

The character of the labor of a uremic subject is noteworthy. If labor is premature it is rapid and painless in comparison to normal labor, and I have seen a seven-months child born with absolute unconsciousness on the part of the mother, who was entirely conscious of everything going on around her. It must not be forgotten premature labor is always imminent in uremia, and a passive labor, that is, a labor at term with little or no apparent pain, should arouse suspicions of latent uremic toxemia. In addition to the painless labor there is a marked tendency to post-partum hemorrhage, uterine inertia and subinvolution. Incontinence of the sphincters ani and vesicæ usually follow the uremic explosion when the premonitory headache is sub-occipital; persists after cessation of attack, recovery occurring in a few weeks.

Pathogenesis.—The pathology of eclampsia is still indefinite. The demonstrations of Zweifel from a number of post-mortems "that multiple thromboses are invariably found in the lungs, liver and brain of all fatal eclampsias, certainly indicate some blood-coagulating product of organic origin," whether leuconain or carbonic acid is not proved.

Chambrelent (Bordeaux) has showed by large experiment that toxicity of the blood is increased in the fetus as well as that of the eclamptic mother. These experiments found confirmation in the experience of Tarnier. Tarnier had only two deaths in twenty-two cases since basing his treatment on Chambrelent's theory of a general toxemia.

The prognosis is always grave; eclampsia is always a final and desperate expression of "maternal intolerance of the fetus." We face the danger of the life of the mother, life of the child, permanent amaurosis, chronic renal disease. The mode of death if the patient does not die in a convulsion is by cerebral effusion, and heart failure. The pregnant state makes differential diagnosis nil. Mitral stenosis complicating pregnancy with acute pulmonary edema, bloody expectoration and coma without convulsions has been diagnosed as uremia. There may or may not be albuminaria in this condition. The only thing to do is to promptly and safely empty the uterus.

Treatment.—Prodromic symptoms and mild early cases are often amenable to judicious treatment. Diet is of the first importance, and should be strictly milk. A milk diet represents "the greatest amount of nutrition in small bulk, sufficient heat and energy, least amount of excrementitious material, is diuretic, and acts favorably on the kidneys." (Porter.)

Second, Diuretics according to amount and specific gravity of the urine. Prolonged hot baths given with care, putting the patient immediately to bed, prolonging the sweating by hot bottles according to the strength of the patient, from fifteen minutes to half an hour. Such a daily bath will probably meet the indication in mild early cases. Also free mild catharsis with calomel and salines. A suitable daily saline in hot water an hour before breakfast to keep the stomach and upper bowel washed out is important.

Do not forget the liver is a great "toxin breeder"; keep it as normal as possible. Correct intestinal fermentation; note the circulation; regulate high arterial tension with arterial dilators. If arterial tension is low, use cardiac stimulants, as strophanthus, caffeine, strychnia. Use strychnia with care as it may induce uterine contractions.

Arterial tension is often high at night and should be prescribed for accordingly.

This regimen with such reconstructives as hemogallol, red bone marrow, protonuclein, etc., is about all we can do to ward off major attacks.

Treatment of the seizure.—The premonitory headache and epigastric pain demand immediate relief. Nothing accomplishes this safer and better than the subcutaneous use of ten minims of Magendie's solution of morphine. Repeat it if necessary. Secure the complete relief of these pains. Follow this with chloral and bromide given by the rectum in some bland vehicle. These patients cannot swallow, and while we must establish active catharsis with calomel, croton oil, if we try to give these by the mouth it will be necessary to wash them down by the use of a nasal catheter. The hot pack to assist in speedy elimination of urea and to establish diuresis must be again used.

I have heretofore said little of renal insufficiency, but in our treatment it must stand in the foreground; we must obtain renal competence. Renal insufficiency being the last factor to produce an explosion, we have not given it a primary place in the etiology of the disease. It is, however, the first pathological condition to be removed if we would save the patient.

Its therapy includes diaphoretics, diuretics, cathartics, nervous sedatives. The hot pack superintended by the physician is preferable to the hot air bath; the latter is often not well borne, does not get up a great amount of sweating, cannot be kept up as long as the hot pack, and is therefore unreliable.

The tendency to great relaxation of the uterus with hemorrhage during the pack must be guarded against by a liberal dose of ergot, if the eclampsia is post-partum. If there is no external hemorrhage the uterus will often be found relaxed after the pack and filled with clots.

Further efficient use of water is found in hot rectal irrigation according to the method of Grandin. The patient is placed on the left side, a long flexible tube is introduced, and eight to ten gallons of a one per cent. salt solution, temperature 118° F. are allowed to flow in and out. An assistant must hold the tube so that it cannot be expelled with the outflowing water. This process stimulates nerve centers, directly stimulates the kidneys, calls the skin into activity and induces peristalsis of the intestine.

The choice of a diuretic is important. Digitalis infusion, of value later on in the treatment, is objectionable in the early stages, tending to increase kidney hyperemia. Nitroglycerin, diuretin, pilocarpin have many advocates. In my hands, nitroglycerin has been useless even in large doses. Diuretin I have found serviceable. Pilocarpin and jaborandi I have never given and should not. In certain cases of acute nephritis after the exanthems this drug has a place, but not in eclampsia with pulmonary edema and unconsciousness for obvious reasons.

In the treatment of convulsions, first give a full hypodermic of morphia, and secondly, ascertain the stage of labor, or the period of gestation. Here again chloral hydrate and bromide of potassium by rectum may supplement the morphia; chloroform also has a place. If labor is in progress facilitate delivery with safe rapidity under full anesthesia. If the labor is just coming on and the cervix uteri is at all dilatable, hand dilation and version may be employed. If the labor is sufficiently advanced to apply forceps, they should be promptly used and the labor terminated.

If the cervix is not dilatable two methods are offered, the multiple incision of Dührssen and accouchement forcé. Dührssen's method is most applicable to cases where the cervix is effaced, the internal os dilated, while the external os is tense and showing but little tendency to dilate. Lusk made a valuable suggestion that the

upper segment of the cervix must be dilatable before attempting multiple incision and further advises immediate repair of the incision. The discussion of the Berlin Obstetrical Society on Dührssen's procedure involved two points: "(1.) Does the eclampsia cease with labor? (2.) Does operation make the prognosis worse"? The decision showed that in sixty-nine to eighty per cent. of cases, eclampsia ceased with the termination of the labor and that the severest operations, even Cæsarean Section, do not make the prognosis worse, if full anesthesia is maintained.

Speedy emptying of the uterus at and after the eighth month improves the chances for mother and child. Before the eighth month it is better to wait. This latter decision is contrary to that recently given by the New York Academy of Medicine; accouchement forcé as advocated by Grandin, was favorably considered.

Zweifel gives some interesting statistics which showed expectant mortality 36.6 per cent.; active treatment 15 per cent.; the mortality as given by Zweifel of all cases was primiparae 36.6 per cent.; multiparae 5.5 per cent.

Venesection and veratrum viride are generally used to control the convulsion. In plethoric cases venesection is valuable and should be promptly used. If it is employed in anemic cases the vessels should be filled with normal saline solution; not because the uremic poison is in the blood itself, but deposited in the solid tissues. Hence to send a blood-stream to the poisoned tissues to favor their osmotic washing-out is at once rational and demanded. Dr. Beverly Robinson has largely used transfusion and venesection with unqualified results; his idea being, so far as I can understand it, to dilute the poison. I interpret his success, however, as largely due to osmosis. Persistent coma with marked exhaustion should have transfusion and early and nearly continuous inhalation of oxygen.

Veratram viride received favorable indorsement at the Ninth International Medical Congress. It should be given subcutaneously in four or five minim doses of Norwood's tincture, repeated every fourth hour up to tolerance, or the arrest of the convulsion. A weak heart would contra-indicate its use. It would be well to guard its use after labor with morphia. Authorities are agreed that it must be given until the pulse is brought down to sixty per minute; its diuretic power is well-established.

In conclusion I want to emphasize, that all disturbances of vision call for induced labor, or abortion; that the patient's condition is desperate; that we are criminal if we waste time in expectant methods or too long delayed delivery.

OPHTHALMIC SCIENCE IN ITS APPLICATION TO SCHOOL HYGIENE.

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The President of this Association has the sanction of custom in the selection of his annual address of a subject to which his thought has been recently directed, or in which he feels an especial interest. I ask your attention to no technical exposition of the errors of refraction; to no statistical computation, but to generally accepted results of research into defects of vision as developed by civilization. I desire to indicate certain reforms pertaining to school hygiene and to enlist your interest in their more rapid adoption.

In our Republic the training and education of the youth to whose control its affairs and resources are soon to be entrusted, is a recognized duty of the State. "In the intelligence of the many lies the good of all." Modern educational methods sometimes work injury to the physical stamina. There are evils for whose correction our united effort is required. With the bibliography of the subject we will not concern ourselves. The literature is abundant and accessible to those who will study it. Defects of vision interfere with the acquisition of the education which the State seeks to provide. Such defects increase in frequency and in gravity under our system of public school instruction. These are truisms which, however, we must be prepared to demonstrate, as also the remedies that our science offers. We have need of simple definition or homely illustration of the meaning of a few terms for which it is not easy to find terms in the vernacular.

The eye we describe as a sphere capable of visual impressions, as possessing the power of forming pictures of external objects upon its posterior lining membrane or retina. The emmetropic eye is one in which distant objects are so pictured distinctly and without exertion or adjustment. It is one in which light rays from a distance are focused as by a lens to a point, which point falls upon the retina.

The myopic eye is one by which distant objects cannot be clearly seen because the eyeball has become too long; light rays focus before reaching the retina, then disperse or diverge. Except in the wearing of concave glasses there is no remedy. While no more than four or five per cent. of the children entering primary schools are myopic, of those whose course is continued until a liberal and professional education is secured, the per cent. of myopes increases to twenty-five or even fifty in some European universities. Myopia is by no means an evolutiou or appropriate adaptation. There is often an early history of painful or difficult vision, of headache and fatigue. Examination reveals congestion of the tunics of the eye, hyperemia of the retina and spasm of the muscle of accommodation. Progressive myopia signifies in middle-life increased liability to disease of the choroid or vitreous, to detachment of the retina and to cataract. The hypermetropic eye is too short. Light rays strike the retina before coming to a focus. Because an unconscious exercise of the muscle of accommodation may increase the refraction of the eye, hypermetropia is not necessarily inconsistent with the exhibition of normal vision. The greater the degree of the error, and the greater the consequent effort required to compensate, the more probable it is that the use of the eye in study may induce asthenopia, strain or fatigue. When such symptoms arise, hypermetropia is to be corrected by convex glasses. Astigmatism is perhaps less easily

defined for the popular understanding. The eye may be likened to an egg instead of a sphere. The radii of curvature differ, and it is evident that if one radius is normal, or that of the emmetropic eye, that the radius which is at right angles to it is of too great or too little curvature. In at least one meridian the eye is myopic or hypermetropic. A lens which is oval in form, focuses light rays to a line, not a point. In the astigmatic eye, a clear image is not formed upon the retina, but to unite the different foci is the constant effort of the muscle of accommodation. For the resultant fatigue or asthenopia there is no remedy, consistent with the continued use of the eye, excepting in the wearing of appropriate cylindrical glasses.

It is needless to dwell upon the influence of defective eyes in preventing the acquisition of the education which it is the policy of the State to give, or to refer to the children who are assumed to be stupid or indolent, when the unsuspected fact may be that they do not see well or cannot employ their eyes without pain or fatigue. With the increase of visual defects during and in consequence of school life we are familiar. Examination of more than 200,000 scholars in this and other countries, substantiates the report made by Cohn nearly thirty years ago after examining some ten thousand school-children in Breslau. Myopia occurs in five or ten per cent. in the primary schools, in ten to fifteen per cent. of the pupils in schools of higher grade, increasing to twenty-five per cent. in the graduates of our colleges.

It is therefore to the application of ophthalmic science in the hygiene of schools that your attention is invited. The importance of early recognition of ocular defects needs no further demonstration when we remember that there are no fewer than 15,000,000 pupils in our schools and colleges. No entrance examination can compare in value with that of the eyesight. Whether conducted by

a medical expert or by a duly-instructed teacher, such entrance examination is as essential as the testing of the color-perception of the employees of a railway. The architecture of school-houses is a science in itself in our rapidly growing towns and cities. Present and future requirements are to be considered. The disadvantage of selection from the designs of competing architects as in the case of a church or monument are obvious. For general plan of construction perhaps none better has been brought before us than that of Mr. Austin, architect of the Philadelphia Board of Education, fully described by Dr. Risley in Norris & Oliver's encyclopedic work now being published. The design involves a large central square, the sides of which are built upon as increased accommodations are required. The outer sides are used for school-rooms, the inner sides for corridors, offices, closets, etc. Light is to be admitted only from the left and rear, and window space is to be equal to at least twenty per cent. of the floor space. Distance of surrounding buildings should be twice their height, window space being proportionately increased when this requirement cannot be met.

In New York City, where school-buildings are erected in compactly-built sections, a new system has been adopted, termed the capital letter H. Blank walls upon the party lines shut off disturbing sights and sounds of adjoining structures, as factories, stables, tenements, etc. Large open courts are in this way secured for both fronts of the building and every foot of land is utilized. Such a school house is now being built three hundred feet west of Amsterdam avenue, with the extremities of the H upon One Hundred and Eighth and One Hundred and Ninth streets.

School furniture almost forty years ago received the attention of Henry Barnard of our State, who first pointed out the faulty construction of seats and desks

in the school-rooms. There is to-day general recognition of the importance of a separate adjustment of both to the height of the pupil. Text-books are best submitted to an expert for opinion upon quality and tint of paper, for size and form of type, the spacing, leading, etc.

Far less work at the near point should be imposed upon younger children. Especially in the home is this apt to be performed under bad conditions of light and posture. Interdict works of fiction during the years of preparation for business and college. Encourage parental coöperation with the teacher's efforts, but let this be in review, not in preparation of a to-morrow's lesson. The continuity of work at the near point should be often broken and the school work interspersed with oral and blackboard exercises, with short recesses, marches, drills, gymnastics. Term examinations ruin countless eyes. Abolish them. Neither let class standing be based on the daily memorized lessons nor upon a semi-annual cramming. Let every recitation be chiefly a review. Base promotion upon the understanding of all previous instruction. Let the teacher's estimate of his pupil rest not on that which the latter has learned by rote—good for this day only—but upon that which he has assimilated, made for all time a part of his mental self. Under such instruction and with such grading we shall oftener be able to select from the pupils the successful men of to-morrow.

Such criticism of public school methods, it may be said, is the verdict of a medical crank around whose hobby the world revolves. Appeal then to other motives. Pardon a moment's digression from our subject and digest the opinion of Wm. J. Shearer, Superintendent of Public Schools in Elizabeth, N. J. The promotion examination is a test of memory rather than power. It forces pupils to go over far more work than they can grasp or understand. It is, moreover, a great temptation to deceit. It puts a premium, not upon the work done

day by day during the year, but upon the amount of "stuffing" that can be done at the end of the term, and is one of the greatest of educational blunders. The teaching test is a careful diagnosis at frequent intervals for the purpose of discovering the disease in its incipiency, in order to apply the proper remedies and save the patient. The promotion examination is a blundering post-mortem to learn the cause of death.

The importance of an entrance examination of the acuity of vision has been referred to. The requirement should be presented to parents. If by them neglected, it may be made by teachers, or especially qualified persons, to whom this duty is assigned. Provide school principals with simple apparatus and necessary directions. No more than in the detection of color-blindness is the physician required unless there is found to exist defective vision or asthenopia. Little is needed except a card with standard test-type to be used at twenty feet and one of diamond-type for near vision. The correction of visual defect, not due to ocular disease, by the wearing of glasses during school-life, means increased ability to study and diminished liability to progressive myopia and astigmatism. Would it not be better to have the examinations made by an expert in ophthalmology? No doubt it would. Let us so advise parents. Whenever possible let the pupil bring a certificate that he is free from ocular disease and defect. But all cannot command the best of guides. Such examinations must be made at the schools, and to bring the expert there for such purpose, on account of the time and labor required, involves the payment of large salaries.

Because perfection is not at once attainable, shall not the existing order of things be improved? For the instruction of teachers in this work, the best thought in our profession will be everywhere given as freely as to hospitals and to the training-schools of the hospitals.

For those found by the school-examination to have diseased or defective eyes, a reëxamination by a competent physician should be secured. Why not refer those unable to pay for medical advice, having been found with defective eyes in the school-examination, to the free dispensaries of the larger cities? Why not let them go to opticians? Such questions we must answer, as matters pertaining to school hygiene are publicly discussed. They can be best answered from the results of experience. The examination in cases of defective vision due to refractive errors requires an amount of time out of all proportion to that needed for the routine treatment of the more common eye-cases presenting at a free clinic. It is accordingly impossible that this labor be performed to any great degree by the responsible chiefs of such clinics. It is hastily and imperfectly done, or else referred to students and "under studies" who are often more benefited by the experience than is the patient who must after all, in case glasses are prescribed, visit the optician. Such is the experience in Baltimore where clinics have been overcrowded since examination of the pupils' eyesight has been undertaken by the Educational Board.

Reference to opticians remains for a moment's consideration. To us this is like sending the sick to a well-stocked drug-store, there to find the remedy under the guidance of an affable clerk with well-cultivated commercial instincts. But in the city of Minneapolis, under a system of school inspection similar to that adopted in Baltimore, a large proportion of the defectives have resorted directly to the optician. Poor eyes, whether due to disease or refractive error, have been assumed always to mean glasses which a vendor can supply. A community so civilized as to establish educational standards for medical practitioners, nevertheless entrusts its well-being and in a measure the future usefulness and happi-

ness of its children, to those who claim no knowledge of medicine, and this in a special department which involves minute study of the anatomy, physiology and pathology of the eye, its nerves and muscles, as well as a mathematical and technical training acquired by few physicians.

No doubt the facility with which elder people find magnifying-glasses that are useful, as the accommodative power declines, fosters the delusion, that if optical appliances are needed for the young the optician can choose from his stock. The matter is, however, unworthy of serious debate. To practice medicine until certain requirements have been met is illegal. The imposition of glasses upon the eyes of children with whom no physiological requirement for their use can exist, is to practice medicine in one of its highest and most intricate branches. Correcting the blunders of such unlicensed and uneducated practitioners of ophthalmology, constitutes a large part of the work of every physician who treats diseases of the eye. The subject is well presented in the Review of Reviews for June, 1897, by Dr. Allport, Superintending Oculist of the public schools of Minneapolis.

At no previous time has the public, the reading and thinking people of this country, been so interested in educational problems and reforms as to-day. Magazines and popular journals teem with discussion. That the coming army of citizens, to be made from the graduates of our schools and colleges, may possess good eyes has engaged the attention of Educational Boards in Baltimore, Minneapolis, in Brookline, in Bridgeport in our State, and many other cities.

As deductions from the facts presented, the following recommendations are offered:

The modification of educational methods now in vogue so as to restrict and often to interrupt the use of the eyes, especially by young pupils, and the removal of

all incentives to periodical cramming, such as term or promotion examinations.

The appointment by Educational Boards of a qualified physician, whose duty it shall be to advise concerning the construction and lighting of school-houses, and in the selection of text-books with reference to type, paper, etc., to make provision for the examination of the eyes of children upon their admission, and to instruct teachers or school principals in the routine of such examination.

[President's Address at meeting of the New Haven County Medical Association at New Haven, Conn., October 21, 1897. For Resolutions concerning this subject see Proceedings, p. 30.]

PHYSICIAN, HEAL THYSELF.

W. H. Donaldson, M. D.,

FAIRFIELD.

If an excuse is to be offered for the introduction of such an old subject, it is simply because the times demand it. The theme is of an ethical, rather than a therapeutical, nature, and is chosen because the present state of our fraternal relations seems to call loudly for a remonstrance.

A recent perusal of the Code of Ethics, brought out so vividly the rank violations of its tenets in our present-day practice, that this opportunity has been taken to bring before you an exhortation to halt and consider.

While our profession has been flushed with brilliant achievements in medicine and the glorious advances of surgery of the past decade or two, its ethics have been allowed to drift into the dim shadows of past memories. To such an extent is this true, that we are now awakening to a realized sense of neglect and forgetfulness, and find ourselves in a sad state of disorder, and our journals filled with the remonstrances of an outraged profession.

The daily press, as well as the scientific and popular periodicals, have entered into the discussion until the public at large are as well informed in many of its phases, as the profession itself. Medical men of high standing have contributed lengthy articles for the reading of the laity to such an extent that it may well be questioned whether they have not been prompted by mercenary rather than charitable or patriotic motives. The seductive temptation of public advertising in the disguise of such methods calls for decided condemnation on our part.

We are living, and practicing, in strange times! The rapid multiplication of our numbers, out of proportion

to that of population; the wonderful advance of both medicine and surgery; the great increase of institutions of public charity (?), which offer free treatment to so many thousands; these three main causes have so largely revolutionized our relations and so alarmingly threaten our welfare, that I am led to ask your indulgence for a short time while we consider where we stand and take thought for the future.

I have mentioned as one of the causes leading to the injury of our welfare, institutions of public charity. The glaring abuse of free hospital and dispensary treatment, supported largely by the taxation of the people, not by the deserving indigent, but by all classes regardless of means, has been so widely presented to us in our Societies and journals, and to the laity through the public press, that I will not dwell upon it at this time. While this undoubtedly calls for correction, and while we, as a profession, are to a large extent responsible for the state of affairs, there is a still greater and more glaring fraud that is doing ten-fold more injury—not only to our financial welfare, but to the professional character and manhood of many of our profession. It is difficult to understand why it has been allowed to pass unnoticed so long. To a degree we have been "straining at a gnat and swallowing a camel."

The fact that our ranks are so rapidly filling up, more and more rapidly each year, has seemed to have started a life and death struggle for existence. It begins to look as if it was "every man for himself and the devil take the hindmost." Many physicians to-day (and by no means is it always the recent graduate) stoop to any scheme to get practice.

This readiness to seize new fields, without consideration of the interests of others, has been taken advantage of by hundreds of thousands of wage-earners in organizing societies of mutual benevolence (?) whose main induce-

ment for membership is practically free medical attendance.

It is astounding to learn that there are in our ranks men of ability and social standing who stoop to such a low level as to enter into a contract binding themselves for a mere pittance, to give their services at all times and under all circumstances. No, worse than that, it is not for the small fee paid. All freely acknowledge that the contract price is but a secondary consideration. Their object and remuneration lies in the opportunity it affords to steal away families from their fellow physicians. "The dog in the manger" is a saint in comparison. For lodge and contract doctors ruin hundreds of dollars' worth of practice where they receive one in cash. "If I can't have the business, I am bound you won't," is the spirit they exhibit: In order to obtain a practice of only fair proportions they will work day and night to ruin the income of a half dozen of their professional brethren. I repeat, as compared with this business the dispensary abuse is nothing.

The physicians of fifty, yes, even twenty years ago, would have scorned any such measures and would have spurned from their fraternity any member guilty of such practices. Why, then, are we more tolerant to-day? Is it because we are less manly, or of a more forgiving spirit?

"Charity begins at home." Just as in many other circles, we of the medical profession are more charitable outside of the family. While we have built up an enviable reputation for charitable work in its most practicable forms, have been foremost in giving time and talent to the sanitary improvement of the state and community, in the onerous work of hospital and dispensary; in the sacrifice and labor of our private professional duties we often evince the greatest lack of charity toward each other.

It is pleasing to note in many parts of the country, nota-

bly in Quebec and California, that decided action against the guilty ones has been taken. In the Province of Quebec, such practice now forfeits the license to practice.

The Bridgeport Medical Society has recently adopted condemnatory resolutions which I trust will have good effect. At least three of our County Societies have taken similar action within a few weeks. It seems to me the time has come when we, as a fraternity, must denounce such underhanded and unprofessional work and paint it in its true colors.

"The Code" distinctly says: "There is no profession by the members of which eleemosynary services are more liberally dispensed than the medical, but justice requires that some limits should be placed to the performance of such good office. Poverty, professional brotherhood and certain of the public duties * * * * should always be recognized as presenting valid claims for gratuitous services; but neither institutions endowed by the public or by rich individuals, societies for mutual benefit for the insurance of lives or for analogous purposes * * * * can be admitted to possess such privileges."

"A physician should not only be ever ready to obey the calls of the sick, but his mind ought also to be imbued with the greatness of his mission, and the responsibility he habitually incurs in its discharge. These obligations are the more deep and enduring because there is no tribunal other than his own conscience to adjudge penalties for carelessness or neglect."

"Physicians should, therefore, minister to the sick with due impressions of the importance of their office."

"Every individual, on entering the profession, as he becomes thereby entitled to all its privileges and immunities, incurs an obligation to exert his best abilities to maintain its dignity and honor, to exalt its standing, and to extend the bounds of its usefulness."

"There is no profession from the members of which greater purity of character and a higher standard of moral excellence are required than the medical; and to attain such eminence is a duty every physician owes alike to his profession and to his patients."

"It is derogatory to the dignity of the profession to publish cases and operations in the daily prints, or suffer such publications to be made; to invite laymen to be present at operations, to boast of cures and remedies, to adduce certificates of skill and success, or to perform any other similar acts. These are the ordinary practices of empirics, and are highly reprehensible in a regular physician."

As a patriot loves his country and is prompt to defend it, so ought we as physicians to live for our noble profession, to maintain its dignity, defend it against those who would dishonor it and practice the principles for which it offers such abundant opportunity.

Whether at the bedside, in the house, the church, the community or the place of public service, there the physician should be, above all others—a man.

In former days the doctor always occupied the most influential position in the community. Aside from professional character, he was looked up to; his opinion was weighty and he was universally loved as a man. Many times his opinion was indisputable; his word was law. He was more than neighbor, he was one of the family.

However much we hear of his rude instruments and septic operations, his vile potions and crude doses; his character is never the butt of ridicule, but often (to the pleasing of our egotistical pride) his personality is so glowingly painted, we fancy him little short of the saintly.

Ex-President Cleaveland, in his address before the New York Academy of Medicine, held before us the mirror as I would have all see it to-day. While the doctor of fifty years ago practiced without the aid of modern inventions

his work was simpler if not easier in that he did not have to battle with the long list of new diseases with which we of the present day have to contend. Indeed the very lack of these aids was a potent factor in developing the force of his character. The absence of convenient counsel and the necessity for prompt action in emergencies where the pocket-knife and carpenter's saw served in lieu of operating case, developed character, just as the battle develops the soldier, and broadened charity to warmer fellowship and blindness to other's lack.

In the community he was a man of influence, a leading factor in the management of its affairs. The demands of his professional duties no matter how great, did not prevent him stopping to discuss the political situation. His character was such that he was frequently chosen to fill the offices of trust and honor.

The Code says: "As good citizens it is the duty of physicians to be very vigilant for the welfare of the community, and to bear their part in maintaining its institutions and burdens; they should also be ever ready to give counsel to the public in relation to matters especially pertaining to their profession, as on subjects of medical police, public hygiene and legal medicine."

I know there is a general feeling among physicians of the better sort that conspicuous interest in public affairs may be misconstrued and looked upon as in some sort a means of professional advertisement. And one cannot but appreciate and admire the sensitiveness and high sense of honor of which this sentiment is born. But, after all, there are greater misfortunes in life than being misunderstood, and I think that the fine feeling which leads the physicians so often to waive the privileges of social and public life in the interest of what he conceives to be professional ethics is capable of a richer fruitage yet, in the defiance of misconstruction, when impelled to whatever performance of public duty he can justify to himself.

At the present day our profession is meagerly represented in public office and we seem to be a weak factor in political life. A physician in legislative halls is an unusual sight, and he is rarely thought of as a fitting candidate for public office. Let us stop for a moment and consider how many physicians there were in the last session of our State Legislature. In a total number of two hundred and seventy-six, six were physicians. The profession of law had twenty-three representatives; an unusually small number.

Yet there were matters of the greatest importance to us acted upon. The legal profession secured all they desired—while we scarcely dared to even ask for anything.

Never before has there been so much of interest to medical men before our National Congress, yet how many medical men are there to give their talents and influence? Among the signers of the Declaration of Independence there were twenty lawyers, but only two physicians.

How many physicians hold office in our State to-day?

Then why such a change? Is it because the times require the professional politician for proper discharge of public duties, or is it possible that we of the present day do not possess the character and other qualifications to command the respect and confidence of the people?

Is it not an incontrovertible fact that the "profession taken as a whole was never in a more perturbed and unsettled state, or more envious and jealous of each other's welfare than now"?

Is it not by our internal relations that our people have come to regard our calling as a mere business or trade, and that while we have been groveling in the dirt for the gain of filthy lucre, we have become blind to our true aims and interests?

Can we blame the public for rating us at our true worth? If we will differ and quarrel and bicker; if we

will speak ill of our brothers and detract from their moral worth and ability, we must expect the public to rate us accordingly, and we have to suffer the consequences.

When a physician stoops to a low act, not only himself, but the profession he represents, is lowered by it.

If a physician wishes to occupy a high standing in the community he will not attain it by underhanded work. Cutting fees cause the people to rate him at his true worth—at the price he sets upon himself.

Cheap bidding for notoriety has its sure reward, for he quickly becomes known for what he is, not what he wants to be.

Josh Billings says: "The world is filling up with educated fools. Mankind read too much and learn too little." It is possible that this hits us.

How frequently we are tempted to criticize when we might commend; to insinuate while we seem to praise. Who of us have not suffered at the hands of unscrupulous brethren, who under the transparent guise of a pretended compliment, have thrust us with the dagger of an insinuation, or a doubtful compliment?

Bitter disappointment and chagrin are often the results of a consultation which should have strengthened the hands of a trusting physician and renewed his confidence. All doubts and differences should be settled in the consulting-room, and never allowed to come outside of it. Many a malpractice suit has resulted from slyly dropped hints or suggestive remarks, by one who was a trusted friend and consultant.

None of us but have our failures and make our mistakes. Therefore we cannot be too charitable, for these practices are like two-edged swords, and are sure to cut both ways, and sooner or later they come home to roost.

Concerning this the Code speaks plainly:

"All discussions in consultations should be held as secret and confidential. Neither by words nor manner

should any of the parties to a consultation, assert or insinuate that any part of the treatment pursued did not receive his assent. The responsibility must be equally divided between the medical attendants—they must equally share the credit of the success, as well as the blame of the failure."

"A physician who is called upon to consult, should observe the most honorable and scrupulous regard for the character and standing of the practitioner in attendance; the practice of the latter, if necessary, should be justified as far as can be consistently with a conscientious regard for the truth; and no hint or insinuation should be thrown out, which could impair the confidence reposed in him, or affect his reputation. The consulting physician should also carefully refrain from any of those extraordinary attentions or assiduities, which are too often practised by the dishonest for the base purpose of gaining applause, or ingratiating themselves into the favor of families and individuals."

After all it pays to be a man, a true man. No physician can impress his character upon his patient or the community until he possesses that character. He will not become a potent factor in the community nor successfully minister to his patients, until he first develops the true manliness within him that will show forth in his very presence. How often do our patients tell us our presence does them more good than our medicines? How much our suffering ones depend upon our moods, our looks and our actions. As we enter the sick-chamber we carry with us a silent influence that is often more potent than words or deeds. What is it? Is it the force of carelessness, indifference, flippancy or coldness, or is it that of intelligence, confidence, sympathy or hope?

We proudly recall the achievements and successes of many members of our profession who have passed on before and from whom we have received inspiration and

instruction." We love to say of many a one, "he was a born doctor." Why? Because the true manliness shone out in his frankness, courtesy and honesty so that it marked him as a leader everywhere.

"His life was gentle; and the elements
So mixed in him, that nature might stand up,
And say to all the world, This was a man!"

Unless the physician truly possesses the stronger character he cannot have a successful influence over his patient. And this character is not of intermittent growth, but must be the rule and precept of his life, lived every day, and under all circumstances.

The true physician must be to his patient not only doctor, but minister and lawyer as well, for many times the occasion arises when he is required to advise in other lines than medicine. A knowledge of local and general laws is often called for when it is impossible or inconvenient to consult a lawyer.

How much more, however, is the physician given an opportunity to advise in religious matters, when his patient would not receive a minister of the gospel. The true type of a physician, whose manliness has so impressed itself upon his patient as to win his confidence and respect, will be many times more able to draw out the spiritual nature and talk of the future with him, than any other. When the patient is in mental trouble or approaching his end, who should be better fitted to converse with him in these matters than he who has made sacrifice for his physical welfare and fought his battles of suffering? The very nature of their relations is such as to make the physician nearer than any one else outside the family and naturally the sufferer looks first to his doctor for his spiritual medicine.

How do we fit ourselves, then, that we may be faithful to our opportunities? Have we not neglected the developement of our spiritual lives in our greed of temporal gain?

Are not our Sabbaths often the busiest day of the seven? Yet is not a day of rest even more necessary to one whose rest is so meagre and irregular, whose work is at all hours and of such arduous requirements? We should arrange then, as much as possible, that little duty shall be required of us on the seventh day and our attention given to spiritual developement. Our presence at divine service is not only helpful to ourselves but to our patients who meet us there or receive its reflection afterward.

Is our social intercourse such, at all times as to improve us in this direction? And do we, as individuals, or in our Societies so conduct ourselves as to develop the better side of our natures and raise the standard of our characters?

> "For if our virtues did not go forth of us,
> 'Twere all alike as if we had them not."

In keeping with this topic is the use of alcoholic beverages. To me, it is a great mystery how, as a profession which daily suffers from the curse of intemperance, and is in constant touch with the squalor and misery of the drink-evil, so many physicians can so carelessly trifle with the curse. Some may incline to sneer at this sentiment but when so many of our Society members are ruining noble characters and blighting brilliant prospects in their field of usefulness to the world, we, as a profession, should strive earnestly to combat the evil. Never before has this curse so threatened the noble character of our profession. "Oh, that men should put an enemy in their mouths, to steal away their brains."

The Code tells us: "It is also incumbent upon the faculty to be temperate in all things, for the practice of physic requires the unremitting exercise of a clear and vigorous understanding; and, on emergencies, for which no professional man should be unprepared, a steady hand, an acute eye and an unclouded head may be essen-

tial to the well-being, and even to the life of a fellow-creature."

In the many controversies over this subject, the arguments against the Code, have been as few as they have been weak. The two principal contentions are:

First.—That strict adherence to the principles of the Code, stirs up discord and drives out of our Societies many of our members.

When a member becomes so guilty of irregularities, and so sensitive of being reminded of it; when his pocket-book is of so much more consequence than his conscience, then his value as a member of this or any other society ceases, and the sooner we are rid of him, the better for our welfare—both as physicians and as men.

Second.—That while the Code did very well for the time when it was adopted, it has long since served its usefulness, and is not fitted for this day and generation.

There is no more weight to this argument, than that the Ten Commandments, or the Constitution of the United States, have ceased to be applicable to the present times. So long as man depends upon man, and the physician realizes he is his brother's keeper, just so long do we need a standard of principles to guide our relations one with the other. Our welfare as a profession, depends upon our being united, and to this end are organized our National, State and other Medical Societies.

But what society can exist without a constitution, or how can our profession be united without some standard of relations? If, then, we are to be united, we must have an agreement—a standard code of laws to guide us. Where can we find a better or more suitable one than our present Code? Wherein does it fail to meet present requirements, or wherein do its provisions conflict with our sense of duty and justice?

If we are each to be guided by our sense of right and

justice—or what we choose to consider such—to be thrown aside whenever convenient, then Unity goes out at the door, and our noble profession falls to the ground. Yet this is what some of our members are doing day by day in their practice, at the same time seeking and receiving gifts of honor at the hands of their fellows. Some who now occupy positions of honor, given them by the suffrage of the members of this Society, openly refute the provisions of our standard medical ethics, and are guided by their own ideas of right and wrong. They repudiate our time-honored Code, that has served all these years, but have nothing to offer us in its place.

There is nothing in our Code not expressed in the Golden Rule: "Do unto others as ye would they should do to you."

To sum up these thoughts in a few words the perfect ideal which we should all strive to attain to, should possess all the virtues and none of the vices. Our life-work should influence us to reverence the true and good and avoid the false and ruinous. Try to be what we would have others see us, and do as we would be done by. Herein lies the true solution of the present perplexing problems of our profession.

"Who misses or who wins the prize,
Go lose or conquer as you can;
But if you fail or if you rise,
Be each, pray God, a gentleman."

SURGICAL PAPERS.

PROGRESS OF SURGERY.

G. R. Harris, M.D.,

NORWICH.

In the past year several changes have taken place which will, in all probability, become permanent, and other methods which bade fair to give great results are gradually being dropped. While previous to this time the surgeon has been very particular to cleanse his hands and thoroughly disinfect them, now he protects himself and his patient by wearing a pair of gloves which are impervious to moisture and air. These gloves, the invention of Prof. Mikulicz of Breslau, are made of a combination of silk and rubber. Although many recommend them to be worn tight, they are usually worn loose, the fingers being drawn down tight and held there by elastic bands around the base of the fingers.

Operators who have become accustomed to them, are loud in their praises. They allow an operator, by providing himself with several pairs of gloves, to operate on any number of cases, either septic or not, without submitting any case to the danger of infection which formerly existed when the only protection consisted in cleansing his hands. These gloves can be boiled and thoroughly sterilized and then, wrapped in suitable covering, they are ready for use at a minute's notice. Valuable as they are in hospital work, how much more useful will they be in field service, which is now so prominently brought before us by our present war with Spain.

The same authority very strongly advocates the use of a gauze mask to cover the operator's hair, face and beard. While in many places a cap covers the hair, I do not think the mask has as yet come into use.

ANESTHETICS.

The anesthesia which is so essential to the success of our operations, is produced in various ways. While ether is still the favorite with the greater number of surgeons the time required to produce anesthesia, the more or less prolonged stage of excitement, with the depression and nausea following it, have caused men to look around for some agent which is quicker and subject to fewer dangers. This has caused the adoption, at various times and places, of different compounds, most of which have combined, in certain proportions, chloroform and ether. One mixture, known as the A. C. E. Mixture, consists of alcohol, chloroform and ether. Another, recommended by Schleich, which has been quite extensively tried in New York, is a mixture of chloroform, petrolic ether and sulphuric ether. This was very quick in its action and was thought to be the perfect anesthetic we have been so long in search of. Failures have occurred in its use and evidently much caution must be used in its exhibition. In the Medical Record of Feb. 26th, 1898, Bennett advises the induction of anesthesia by commencing with nitrous oxide gas and then quickly changing to ether; this change must be quickly made, and the Ormsley apparatus has been considered most efficient for this purpose. This method is now used in some of the hospitals in New York. He claims that, with this method there is more comfort for the patient, no stage of excitement, less mucous and much quicker return to consciousness. Chloroform is still the favorite anesthetic in obstetrical cases. As a local anesthetic cocaine is undoubtedly the most efficient and reliable, but its liability to produce heart-failure has caused its use to be considerably restricted, especially when the circulation is very active. Cases have been reported where quite large operations have been done with eucaine; in one instance amputation of the leg was done, the patient

feeling no pain. Ethyl chloride has many things to recommend it for the induction of the local anesthesia of short duration and is becoming much more commonly used.

SURGICAL DRESSINGS.

In surgical dressings not many changes have been made. Smaller wounds are still sutured subcutaneously, the edges of the wound being brought in accurate apposition. They are sealed with collodion. Iodoform, on account of its cost, its bad odor and its tendency, on many skins, to produce severe irritation, and from the alarming constitutional symptoms which are at times produced by its absorption, is being used much less than formerly, and the work which was left for this to do, is now being performed before the wound is closed by a free injection of pyrozone, peroxide of hydrogen, hydrozone, and other preparations, which are supposed to attack and destroy all pus-cells in the wound. They are very efficient and especially valuable in bone operations, where pockets and sinuses are being treated, but a certain amount of caution should be used in places where a free exit has not been provided, especially if the surrounding parts are not thoroughly walled off; as the products of decomposition, by the force which is developed, may be pushed along into surrounding and non-infected territories and, as might happen in a recent appendicitis, a general peritonitis set up. Its use in aural surgery has been followed in several instances by severe cases of mastoid abscess. A small opening in the drum, allowing the pyrozone to enter and then a large amount of foaming taking place and not being able to escape, it pushes along into the antrum and causes trouble which is ended in abscess.

SUTURES.

Thomalla describes a new method of preparing silk and catgut for sutures, by immersing sterilized sutures

for some time in a gelatine formalin solution and then drying them. When used, they are said to release formalin in the tissues. He claims no stitch abscess ever develops where sutures are prepared in this way.

CANCER.

Several new conclusions have been reached this year, in regard to the treatment of carcinoma. The treatment of cancer, by inoculation with the erysipelas germ, from which so much was expected, has, I think, been acknowledged by most surgeons to be of very little use. In the majority of cases no better results have been obtained than were obtained by treatment with arsenic and other drugs; and in many cases the process seems to have been hurried rather than retarded.

Hypodermatic injections of an alcoholic solution of the chloride of gold have been tried and Dr. L. A. Stimpson says that he has had some cases in which marked improvement has resulted from this method of treatment; he also recommends the use of injections of peroxide of hydrogen, claiming that it will retard the breaking down of a gland structure, and in cases where this has occurred it will keep the surface clean and very often do away with the bad odor. The rule in regard to operations on cancer, to remove all the diseased tissue with glands in the neighboring parts, still holds good. In operating for carcinoma of the lip the submaxillary and sub-lingual regions should be thoroughly explored and all glands should be removed. In operating for carcinoma of the breast, it is now the rule to remove the whole of the breast with the glands in the axilla and to commence the operation by dissecting out the glands in the axilla first, thereby avoiding the danger of forcing, by our manipulations, diseased fluids up into the structure of the axilla.

The surgery of the Stomach, Esophagus and Intestines

is so intimately connected with carcinoma that I will speak about these parts now in connection with this subject. The upper portion of the esophagus has been resected by Prof. Garre of Rostock, who has reported three successful cases, and Dr. Rehn of Frankfort-on-Maine, has successfully removed the thoracic portion of the esophagus for carcinoma, although subsequently the patient died.

THE STOMACH.

Operations on the stomach are much more common now than ever before and include gastrolysis, gastrotomy and gastrostomy, extirpation, resection and gastro-enterostomy. Gastrolysis is an operation to free the stomach from adhesions, the results of ulcers, gall-stones, peritonitis, etc., and many time cures a patient of colic, persistent vomiting and other digestive disturbances, which have continued for many years. Lauensteins reports ten cases with nine recoveries.

Gastrotomy according to Keen is performed for three reasons: First, to remove foreign bodies from the stomach; second, in case of stricture of the esophagus; third, for exploration. Foreign bodies have been removed from the stomach and from the esophagus, and through the stomach strictures of the esophagus have been dilated with bougies and internal operations have been performed upon the esophagus with specially constructed instruments. Gastrotomy for exploration can now be done with very little danger to life and Maylard says that the day is not far distant when the stomach will be opened, explored and resutured for diagnostic purposes, with as much freedom and security as is now done in cases of the brain.

Resections of portions of the stomach are now becoming very common, especially with German surgeons, and Dr. Schuchardt reports a case of almost complete extir-

pation of the stomach in which after two years of good health with no digestive disturbances, death being caused by pleurisy, the autopsy revealed complete regeneration of the stomach. Prof. Krönlein of Zurich, has reported a case of total extirpation of the stomach performed at his clinic, by his assistant, Dr. Schlatter, which, he claims, is the first authentic extirpation of the stomach ever performed. The patient was a woman; the operation was performed several months ago; the patient is still in good health with no digestive disturbances and has gained thirteen pounds; claims she can take any ordinary nourishment. He also reports twenty-one cases in which resection has been done for cancer of the stomach, sixteen of which were done in the last ten years. Of the first six, three died in consequence of the operation; of the last sixteen, only two died from this cause. Of the sixteen successful cases, two died of other diseases in ten months, eight of recurrence of the tumor and six are now perfectly healthy, two having survived the operation more than four years.

All operations on the stomach, to be successful, must be thorough, and all glands in neighboring parts must be removed.

In the Boston Medical and Surgical Journal of May 5th, 1898, Dr. Brigham reports a case of an Italian woman, sixty-six years of age, in which he removed the entire stomach for cancer of the pyloric extremity, which involved almost one-half the stomach. In this case the duodenum and the œsophagus were united, a No. 3 Murphy button being used. Seven weeks after the operation the patient left the hospital apparently entirely well, taking ordinary nourishment and gaining weight. Many cases of carcinoma of the stomach are so far advanced and the glandular structure so much involved that resection or extirpation are not to be thought of and in these cases gastroenterostomy offers the only chance for

relief. Also many cases of stricture of the pyloric orifice are best treated by this operation. There are many different methods of gastroenterostomy, but the latest consists in dividing the intestines at some distance from the stomach. The distal end is then brought up to the stomach and an opening is made and an anastomosis is formed, using Murphy button, or what is probably better, Stimpson's Potato button. The proximal end is now brought around and joined to the intestine, which we have just united to the stomach, about one foot from the stomach. This method is said to be superior to any other, inasmuch as it gives the bile a clear route into the intestines, while in other methods it is of necessity compelled to flow into the stomach, and in some cases said to cause nausea and vomiting.

REGIONAL SURGERY.

In regard to regional surgery, commencing with the head, several interesting things have been reported.

Dr. Doyen, at the Congress of German Surgeons, reported several cases on which he had performed hemicraniectany; one, an idiotic girl with exopthalmic goiter; four days after the operation exopthalmos and goiter had both disappeared. A number of idiots and microcephalies have been much benefitted. He has operated for epilepsy; one case has had no attacks for five months and another has had no attacks for six months. He claims to have removed the epileptogenic center in one case of Jacksonian epilepsy with a cure. One case of occipital meningitis was cured by an operation, although the patient was moribund at the time of operation. He makes extensive resections of large plates of the cranial bones.

Empyema of the frontal sinuses is now treated by Prof. Barth of Dantzic, by trephining into the sinus and then enlarging the opening into the nose. He closes the outside wound and gets good results in about two weeks.

A new symptom in cerebral tumors has been brought to notice by Dr. N. B. Carson of St. Louis, the cranial cracked-pot sound, and is said to be present when the inter-cranial pressure has separated the sutures somewhat; this is also said to be present in cases of fracture of the skull, but if the sutures are widely separated you will not get the sound.

OPERATIONS ON THE LIVER AND GALL-BLADDER

are now becoming very common and results are very favorable. At the Congress of German Surgeons held at Berlin in April, Dr. Peterson presented statistics of one hundred and sixty-two cases on the liver and gall-bladder, with only six deaths. In many cases they were obliged to resect portions of the liver; he states that in regard to peritonitis being caused by bile, this will not follow unless the bile has been previously infected.

Prof. Poppert of Giessen, reports fifty-seven cholecystotomies with good results. He sutures one end of a rubber-tube in the wound in the gall-bladder, the other end being brought out of the abdominal wound; on removing the tube he has a clear fistulous track and says he is never bothered with leakage of bile.

Dr. Hollander of Berlin, describes a case of complete extirpation of the gall-bladder with resection of the liver for malignant disease. The operation was a complete success and the patient is in good health. The method which he used to control hemorrhage was entirely new and will undoubtedly prove a valuable addition to the limited means which we now have at our disposal. He uses hot air to control hemorrhage and his apparatus consists of a small Bunsen burner with two small arms extending from opposite sides of the tube. These arms support a small coil of pipe which is at such a height as to just come within the flame. One end of this coil is extended into a tube with a fine point, the other end has attached a rubber tube and bulb similar to that used

in a Paquelin cautery. This method is said to work well elsewhere and is in line with the experiments which have been made to control hemorrhage from the uterus by use of steam.

SPLEEN.

Ballance, in the Practitioner of April, 1898, reports the fifth successful case of splenectomy for rupture of the spleen without external wound. The patient, a boy of fourteen, had a quick convalescence, with no serious symptoms such as usually follow removal of the spleen in adults, but subsequently did have enlargement of lymphatics of the neck, axilla and groins. He bases his diagnosis on locality of injury, evidence of internal hemorrhage and the large area of fixed dullness in the left flank and not changing with position; a symptom, which he claims is almost pathognomonic of this injury.

Dr. Prewitt of St. Louis, reports two cases of cyst of spleen which were operated on, both making perfect recoveries. In one a large calculus was found and removed. This was supposed to have been the exciting cause of the cyst.

THE PANCREAS.

Dr. Cushing of Boston, at the Congress of American Surgeons at New Orleans in April, reported a case of traumatic rupture of the pancreas, followed by a formation of a hemorrhagic cyst which closely simulated an abdominal aneurism. This was operated upon, the wound in the spleen being found and the sac drained. The wound in the spleen was not sutured on account of the condition of the patient, and a pancreatic fistula resulted which was completely closed and the patient was fully recovered in seventy-seven days. During this time there was a profuse discharge of pancreatic fluid which afforded an unusual opportunity to study this fluid and many facts were discovered which will make the case of especial interest to physiologists.

THE APPENDIX.

Operations on the appendix are becoming more common, better results are being obtained and many abnormalities are being reported.

Keen of Philadelphia reports a case where the appendix became permanently attached to the bladder, producing a urinary fecal fistula.

SURGERY OF THE KIDNEY

is receiving considerable attention in various parts of the world, and the Hunterian lectures delivered in March at the Royal College of Surgeons by Henry Morris have done much to stimulate researches in this direction. Very good results have been obtained in Guy's Hospital by use of the X Ray for the diagnosis of calculus in the kidney. Morris claims that nephro-lithotomy should be more generally practiced, that nephrectomy for calculus conditions is rarely necessary except in cases of calculous pyonephrosis and even here nephrotomy with free drainage should be given a trial, and that in cases of suspected calculus in kidney, whether quiescent or giving rise to symptoms, the expectant plan of treatment should never be used, and that we should no more hesitate to urge nephro-lithotomy for renal calculus than lithotrity for vesical calculus. He says the mortality from both procedures is equally low.

Edebohls claims that an exploratory incision should be made to determine the condition of the other kidney in every case where nephrectomy is contemplated; saying that the procedure is a perfectly safe one in the present state of surgery.

Dr. J. N. Hall, in April, at a meeting of the Denver and Arapahoe Medical Association, and reported by the Philadelphia Medical Journal, reports a case of partial dislocation at the occipito-atloideal articulation which was associated with a complete tearing across of the

right vertebral artery. This is a very rare case, Hamilton reporting but three similar cases.

THE SPINE.

Dr. F. T. Prewitt of St. Louis, at the Congress of American Surgeons, read a paper on gunshot wounds of the spine, and reached the following conclusions:

1. "It is the duty of the surgeon to advise immediate operation in all cases of gunshot-wound of the spine, provided the wound has involved the posterior or lateral parts of the spine at an accessible part, unless the condition of the patient is such as to indicate clearly that he is hopelessly crippled.

2. To wait to see that nature is competent to restore the damage is to wait until irreparable damage has been done in many cases and rapid degenerative changes, meningitis and myelitis, have resulted. The delay permits of the continuance of the conditions, the removal of which is the purpose of the operation. These conditions apply with greater force, if possible, to gunshot injuries than to others.

3. The presence of complications due to penetration of the great cavities and injury of the viscera will influence the question of operation, but not necessarily forbid it."

In the treatment of Pott's disease of the spine, Cabot's method of applying pressure to the prominence while extension is being made seems to be very generally endorsed. The contra-indications to this treatment are: 1. A number of vertebrae included in the kyphosis. 2. Very long existing deformity. 3. Purulent collections about the vertebrae. Paralysis is not a contra-indication. Young people are best subjects and if under extension without anesthesia the prominence partially disappears, then the subject is a favorable one for this method, otherwise not.

Thorndike advises early operation in all cases of spina bifida, saying that although prognosis is bad in all cases, an early operation will lessen the mortality.

FRACTURES.

Several new ideas have been published in regard to the treatment of fractures.

Roberts of Philadelphia, in the Philadelphia Medical Journal of May 5th, advocates subcutaneous tenotomy in the treatment of fractures with persistent deformity, claiming it has produced excellent results in fractures of the leg. Thinks it would also do well in fractures of the femur. Strict antiseptic precautions should be used.

Dr. L. A. Stimpson of New York has diagnosed several cases of fracture of the scaphoid bone, by means of the X Ray and says he thinks that this injury occurs much oftener than is commonly supposed. The deformity is not unlike that produced by Colles' fracture.

H. L. Smith, in the Journal of Medicine and Science, April, 1898, as a result of experiments on fractures of the elbow-joint, artificially produced, claims that in no way can the fragments be so accurately reduced and held in place as by strongly flexing the forearm upon the arm. He reports thirty cases treated by this method in the last three years with results which, he says, are superior to those produced by any other method.

Many operations have been devised for treatment of fractures of the patella, and many different methods have been devised for holding fragments in apposition without operation. But in all probability the one means at our command which would give best results if used alone is to elevate the foot. Dr. Stimpson of New York has proved by experiments that when the foot is thus elevated no contractions of the muscles on the anterior surface of the thigh will cause the fragments to separate, and this position, supplemented by pads above and below the patella and by traction on these pads with adhesive

plaster after the fragments have been strongly rubbed together to free them from clots and other substances, will in most cases give first class results. If, however, a patient is so situated that a surgeon could have skilled assistants and could be sure of his antisepsis, operation measures would also give good results, especially in fractures by muscular action. In all probability, the best operation is to make a vertical incision over the patella, free the edges of the patella of all foreign materials, bring them in apposition and hold them there with a suture running through the tendon of the quadriceps down over the patella and then through the ligamentum patellæ. Now close the external wound without drain and elevate the leg and keep it elevated until union has taken place.

Dr. Doyen, at the Congress of German Surgeons, read a paper on treatment of congenital dislocation of the hip, in which he advocates cutting down the joint and boring out the acetabulum and then placing the head of the femur in the socket which he has prepared. He gets good results and says this method is applicable up to the twentieth year.

SURGICAL PROGRESS IN GYNECOLOGICAL AND GENITO URINARY.

F. M. Tukey, M.D.,

BRIDGEPORT.

Perhaps the most important sign of progress which strikes one in reviewing surgical work is the earnest effort of all our best surgeons to establish in every branch of surgery a more rational conservatism. This feeling is not a spontaneous outburst of hasty conclusion by any means, but is the result of mature deliberation after years of careful, conscientious work. There can be no doubt but that for some time past it has been becoming less common to remove the ovaries and uterus for vague and indeterminate conditions—so much so, that many of the so-called hysterectomy and ovariotomy "record" men have begun to wage war on this spirit of ultra-conservatism, as they term it, arguing that already the pendulum of conservatism has swung back too far, and that we are not now operating as much as we should, as is right and demanded by circumstances. The above pertains to some extent in genito-urinary work and to castration for the relief of various conditions in the male. But the influence of such men as are so prominently arrayed on the side of more rational operating must prevail, and we can hope for still further advances in this direction.

More specifically, the general trend of feeling seems to indicate a growing preference among gynecologists to both explore and operate through the vagina whenever possible, after the method described and practiced by Dübrossen of Berlin—so that with not a few, only the largest tumors demand the abdominal

route for their removal. Of course there are some, many, who still advocate and use the abdominal route as being more familiar and accessible—but in the light of a longer experience and an improved technique, the vaginal method offering as it does less danger from sepsis and shock, seems likely to become more and more popular. The chief advantages claimed for the vaginal route are that it is a much less serious operation than abdominal section—that the intestines once pushed out of the way with a sponge are not seen again—there is no abdominal scar with risk of hernia, and there is less discomfort after the operation, the patient being able to turn on her side at once and is usually up in two weeks. A small vagina makes this route difficult, even with lateral incisions. A fixed uterus that cannot be drawn down at all makes the operation impossible.

The nervous system in its delicate relation to the female sexual apparatus has been more thoroughly studied the past year than ever before; the great importance of its appreciation for the proper understanding and treatment of disease has been one of the most significant gynecological advances of 1897-8.

The question of bicycling for women, whether it is beneficial or injurious, is still under discussion, with opinions about equally divided. There can be no doubt as to its benefit in some cases; as in anemorrhea, especially when the uterus is undeveloped; also in dysmenorrhea, and in all cases where the uterine disorders are due to a relaxed condition of the parts. Uterine flections are not particularly influenced. But it should be absolutely forbidden in salpingitis, subacute and chronic peritonitis of whatever origin; fibroids and ovarian tumors. Bladder troubles too, are usually aggravated by bicycling.

Gonorrhea, with its ulterior effects, still continues to

form in both male and female, a very important feature of gynecological and genito-urinary surgery.

Genito-urinary surgery generally has experienced few important changes or advances, but the improved technique of cystoscopy has opened a wider field, so that by means of more accurate diagnosis in obscure conditions we shall expect the coming year to yield something of interest in this direction.

The relation of the ureteral catheters to the surgery of the kidneys in women has attracted considerable interest of late. The study of the separated urines of the two kidneys provides a method of physical examination of these organs which is wonderfully accurate and safe. The importance of this examination rests upon the fact that it enables one to isolate the disease, and to determine with certainty, not only which kidney is afflicted, but how it is afflicted.

Reynolds formulates the following results from these examinations: (1) That the symptoms may be transposed; that is, the pain and tenderness may be referred by the patient to the comparatively sound kidney; (2) There may occur transitory and inflammatory affections of the sound organ, which would decide one to defer operation till they had passed away; (3) The choice between nephrotomy and nephrectomy and often the decision as to whether any operation at all is permissible, should be decided by comparing the relative condition of the two kidneys; (4) In patients with renal calculus, the question between nephro-lithotomy and nephrectomy must depend on whether the condition of the affected kidney affords a prospect of good healing and a useful kidney after nephrectomy.

Many of our best operators are strongly advocating earlier interference for acute inflammations and suppurative processes of the kidney, claiming that time is of much value in these cases and a lower mortality will result.

They are able to select these suitable cases for nephrectomy by the aid of the cystoscope, which enables them to determine positively that two kidneys exist in an individual and that the healthy kidney is competent, probably the two most salient points in the prognosis. But with all this accessory knowledge granted, there are many who will still hold to the older maxim that "a kidney should never be removed until it threatens life."

The present status of castration for the relief of prostatic hypertrophy, as given by McEwen, is as follows: (1.) "In a considerable proportion of cases castration induces more or less atrophy of an enlarged prostate and the effect is obtained when there is general enlargement of the gland; (2). Atrophy occurs most readily in the soft and elastic forms of hypertrophy, but may also take place in the hard; (3). Cystitis when not far advanced may be cured; but high grades of cystitis with septic infection will be more beneficial by drainage of the bladder; (4). Vesical contractility may be restored even after years of catheter life; although voluntary power does not return castration may still bring relief." With the exception mentioned, castration will give as good results as prostatectomy with a smaller death-rate. Resection of the vos deferens acts more slowly than castration in reducing prostatic hypertrophy, is a simpler operation and more likely to be assented to earlier.

As to the comparative results from castration and vasectomy, the number of recorded cases of the latter are too small and the elapsed time too short to draw definite conclusions from, as to mortality or degree of improvement. "Castration is more efficient in large, tense prostates, where obstruction is due to pressure of the lateral lobes on the urethra, while prostatectomy is most useful to relieve obstructive projections which act as urethral valves."

No report of the year's surgical work would be com-

plete without mentioning the X Ray which is now so constantly and generally used as an accessory to diagnosis, especially in general surgery. You are all familiar with the technique: Marvelous pictures, e. g., dilated and atheromatous aortae; renal calculi; the descent of the diaphragm; enlargement of the heart; calcified foci of old tuberculous disease in the lungs, and especially its application to settle questions as to fractures and dislocations in medico-legal cases, are now so common as to excite only passing interest.

Nothing to compare in magnitude with Schlatter's new operation for complete removal of the stomach has, so far as I know, been evolved by gynecological or genito-urinary surgeons, though the huge fake of Dr. Schenck of Vienna of "Determination of Sex" might be contrasted by some specially interested.

Undoubtedly the last twenty years have seen more actual progress in both medicine and surgery than the preceding twenty centuries; but concomitant with all this acknowledged progress, and in fact because of it, anxiety and restlessness on one hand and enthusiasm and competition on the other, have, in many instances, replaced rational and scientific means and methods with others equally irrational and unscientific, and latterly we find that "direct injury has resulted to mankind from this so-called advancement, which was in defiance to Nature's unerring laws." But it is on the failures of others that we progress.

Not being associated or connected with any hospital, and in consequence necessarily enjoying but a limited surgical practice, I have nothing of an original nature to advance or advise, but have, rather hurriedly, collected a few points which I thought might be interesting and which I offer merely as a compilation.

The subject of abdominal drainage has lately been thoroughly discussed by the Chicago Gynecological

Society and the following conclusions were drawn: "Drainage is called for in suppuration of any type, whether local or generalized; bleeding which cannot be controlled by ligature or hot sponges; cysts or cavities which have been opened and cannot be entirely removed, and complications arising during operations, due for instance to rupture of viscera in such positions as may preclude efficient closure." Senn declares that: "The necessity of drainage depends to a large degree on the carefulness of the operator."

What material shall be used for drainage? Formerly the glass or rubber-tube was used almost exclusively, but there are obvious objections to its use; principally its unyielding nature, its inability to adapt itself to pockets and irregular wounds; and the necessity of drawing off the fluids which collect in it and which demand almost constant attention.

Gauze, on the other hand, now almost entirely replaces tubes for drainage. It fits all holes or depressions perfectly, has no tendency to cause ulcerations of the intestines, as do glass and rubber, and does not need constant attention.

What is the best site for drainage? The wound in the abdominal wall must often be the only choice for drainage, even though it is opposed to gravity, and increases greatly the risk of subsequent hernia, as well as causing fixation of some of the viscera to the abdominal wall by adhesions. But in all cases where it is possible or expedient, as in pelvic lesions and even in diffuse peritonitis, many surgeons are advocating and practicing vaginal drainage through the posterior cul-de-sac. This method reduces intestinal manipulations to a minimum and takes the greatest possible advantage of gravity.

In reporting the following I wish to acknowledge my indebtedness to Drs. Reynolds, Watson and others:

A NEW OPERATION FOR THE CURE OF UTERINE FLECTIONS.

Nourse describes a new operation for the radical relief of uterine flections. He splits the cervix transversely up to the angle of flection, then straightens the uterus and sews the severed cervix together in the straightened position. The lip which corresponds to the convexity of the flection then slightly overlaps the other at the os externum; but Nourse states that this projection disappears in a few months.

The author believes this operation is practicable for all cases except those where there is pus in the pelvis.

He reports a number of cases of uncomplicated flection in which the operation was successful.

DANGER OF PREGNANCY AFTER OVARIOTOMY.

Laraymne reports the following interesting case: An easy ovariotomy was performed by him on a young multipara. Menstruation took place once after the operation. During the second month of pregnancy she was suddenly seized by severe abdominal pains, accompanied by dyspnea and vomiting. She died five days later. At the autopsy the peritoneal cavity was found to be filled with a coagula, the hemorrhage coming from the stump. The ligature had slipped in consequence of traction, due to the growing uterus.

NEW METHOD OF VAGINAL FIXATION OF THE UTERUS.

Kiefer adds still another to the already many methods which have of late been proposed. He separates the bladder from the uterus and introduces two fingers into the peritoneal cavity. Under the direction of the fingers the abdominal wall is punctured with a long, sharp-curved artery-needle carrying a ligature of catgut or silkworm. The end of this suture is caught on the outside; the other end of the suture is then directed around the ligament and again through the abdominal wall by the same

instrument. The other ligament is treated the same way, and the vaginal wound closed. The advantages of the operation are of course found in the fair mobility which is permitted to the uterus, thus rendering interference with pregnancy unlikely, and in the absence of the abdominal scar. The author believes that in this method puncture of the intestines is practically impossible.

NEW OPERATION FOR CYSTOCELE.

Marsi describes the following operation: A longitudinal incision is carried through the mucous and submucous layers of the anterior vaginal wall from the anterior fornix to the lower end of the urethra. At each end of this incision a small transverse one is made on either side and the two lateral flaps thus marked are dissected off.

Interrupted sutures of catgut are passed through the base of the right-hand flaps beneath the median raw surface, emerging at the base of the opposite flap. The flaps are then replaced over the first line of sutures and their edges are united by a continuous suture of catgut.

The result is not only the removal of redundant tissue but the formation of a new supporting column in the median line of the anterior vaginal wall.

Hadra describes still another new operation for the relief of cystocele. He thinks that the ordinary operations fail by not restoring sufficient longitudinal tension to the anterior vaginal wall. In order to accomplish this aim he dissects a broad flap of anterior vaginal wall from above downwards, the transverse incision being made on the vaginal portion of the cervix.

He then draws the flap upward until by its tension the cystocele is effaced. The redundant portion of the flap is then cut off and the remainder stitched in place upon the cervix and along the lateral lines of the incision.

The operation is especially recommended for cystocele with retroversion or retroflection.

Hadra states that the normal relation between cervix and the anterior vaginal wall is much more completely restored by this than the ordinary methods of repairing cystocele.

PREVENTION OF IMPREGNATION BY DIVISION OF THE TUBE.

Prof. Kehrer of Heidelberg has investigated this subject consistently the last few years and insists on the advisability and importance of preventing women with certain chronic and wasting diseases from becoming pregnant. He also suggests his method as advisable in extremely contracted pelves. He considers it more rational under these conditions to render such patients sterile than to resort to the inevitable alternative of inducing abortion after pregnancy has occurred. Since removal of the adnexa is followed by climacteric disturbances, the author suggests that a woman may be rendered sterile by simply ligating and dividing the tubes. The operation appears less severe than castration and presents some advantages. Experiments on rabbits showed that this procedure was not followed by hydro- or pyo-salpinx as might be inferred. He tried his method on the following case: A woman, twenty-seven, viipara, two children had died soon after birth. The rest were either much deformed or idiots.

A seventh pregnancy, on account of the wretched condition of the mother, was terminated artificially at the fourth month. Failing to prevent conception by the usual methods, after mature consideration it was decided to accomplish the result by surgical means. An anterior vaginal incision was made as in vagino-fixation, the fundus uteri drawn down into the wound and each tube ligated in two places near the isthmus and divided between the ligatures, care being taken not to include the vessels.

The uterus was then fixed by sutures in the position of anteflection. Convalescence was normal and the succeeding menstruation appeared as usual and at the normal time.

The advantages claimed for this method are simplicity and the absence of subsequent disturbances, especially atrophy of the genitals and the extinction of sexual desires.

Diseased adnexa when found should, of course, always be removed. Kehrer adds that this operation should only be performed as a last resort, at the request of the family physician as well as the written consent of all parties interested.

The criticsm that total abstinence would accomplish the same result hardly holds good, for experience shows that it is practically impossible to maintain this restriction.

Fritsch claims that ligature alone is not sufficient, as he once tied both tubes with silk, yet the patient had a child three years later. He advocates double ligature, cutting between the two.

AN ELECTRODE FOR THE REMOVAL OF LIGATURES.

Cleaveland describes an electrode for the removal of ligatures in vaginal hysterectomy. He believes it is of great benefit to remove the ligatures early, and was much pleased with the means here described. It is a loop of platinum attached to copper wires, which is tied in with the silk ligature. At the end of thirty-six hours the wires are attached to a three-cell storage battery; the current burns through the silk, and ligature and electrode are removed together.

Considerable has been written lately pro and con as to the results of extirpation of the ovaries and tubes as a cure for inoperable cancer of the breast. In a long list of cases of Spencer Wells it has been traced that by comparing the cancer-mortality in women in general of the

same age, the ratio was in those without the operation one-fifteenth; in those whose ovaries had been removed one to two and three-fourths, or about five and a half times greater. In the case above reported there was no sign or reason to suspect at the time of ovariotomy that malignant disease was then present. In these cases the removal of the ovaries instead of checking the tendencies to cancer had the contrary result. Beatson, on the other hand reports several cures from his experiments with such cases and formulates the hypothesis that cancer is directly connected with deviations from the normal in the condition of the sexual organs. Several well-known authors agreed that Beaston's results were extremely remarkable and suggestive, and although they could not agree with him as to the cause of cancer, they thought in the light of such experience that patients with inoperable cancer of the breast might be given the chance of a cure, by removal of the tubes and ovaries as a last resort.

GENITO-URINARY SURGERY.—BATTINI'S TREATMENT OF PROSTATIC HYPERTROPHY BY GALVANO-CAUTERY.

Battini describes his technique and the instruments by which it is carried out. The bladder having been emptied the urethra is cocainized with a one per cent. solution. A galvano-cautery instrument shaped like a stone-searcher is then passed into the bladder. The cauterizing part of the instrument is then held against the portion of the prostate which it is desired to burn and is heated to a red-heat. The application of heat should continue only a second or two. The temperature of the cautery-blade is increased every ten seconds, the outer part of the instrument which surrounds the cautery-blade being kept cool by the passage through it of a stream of cold water. There is not much pain from the operation. After-treatment consists in drawing the

urine with a catheter for the first twenty-four hours and washing out the bladder with a solution of boracic acid. The slough separates usually in about twelve days, after which, as a rule, the patient is able to urinate spontaneously. This is especially effective when there is much atrophic change in the bladder wall, the electric current and cold water douches being of much assistance.

The points of advantage claimed for this operation are: (1.) Rapid restoration of spontaneous urination, even when it has been absent for years; (2.) Absence of danger, and its aseptic nature; (3.) Freedom from relapses; (4.) Painlessness and avoidance of general anesthetics.

THE VALUE OF RESECTION OF VASA DEFERENTIA IN PROSTATIC HYPERTROPHY.

Carlier reports the results of five cases of prostatic hypertrophy in which he practiced resection of both vasa deferentia to the extent of eight centimeters, between two ligatures. At least six months had intervened in any case since the operation. In none of them had there been any improvement of the dysuria, but the urine in three cases had cleared up, which fact he attributed not to the operation, but to rest in bed. Bosquet reports an exactly opposite result and cites one case in particular. Patient was a man seventy-seven years of age. Six months before he had his first attack of threatened urinary retention, which has twice since been repeated. Ten days before actual retention took place, necessitating since then the regular use of the catheter. On examination the prostate was found to be the size of a foetus' head at term.

Catheterization was extremely painful and difficult. Resection of the vasa deferentia was performed; on the third day afterward catheterization was easier and voluntary urination was accomplished. A catheter was tied in and allowed to remain three days, at the end of which

time the patient urinated voluntarily. At the end of a month voluntary urination was satisfactorily performed and the prostate had diminished two-thirds in size.

TOTAL EXTIRPATION OF THE BLADDER FOR DIFFUSE CANCER.

Tuffier reports the case of a man forty years old who had symptoms of dysuria, hematuria and painful micturition for several years. He performed a supra-pubic cystotomy and found a diffuse cancerous growth occupying about the whole of the interior of the bladder, but not extending beyond that organ. There was no glandular involvement discoverable. The operator succeeded in freeing the peritoneal investment of the bladder entirely from the organ without opening the peritoneal cavity. The ureters were cut off and implanted one on either side of the rectum, and ureteral catheters, attached by a stitch in each ureter, were led through the anus. The abdominal wound was closed except at its lower angle, through which it was drained. A urinary fistula established itself through this wound in a few days after the operation.

The patient, however, made an excellent recovery and was able to resume his work.

DISCUSSION.

In the discussion of the papers, Dr. Carmalt said the Society ought to be congratulated on having such full reports. There were two points, however, in Dr. Harris' paper, which he would like to have explained. Dr. Harris spoke of fractures of the scaphoid bone simulating Colles's fracture. Colles's fracture is a fracture of the lower end of the radius. Another point was the difficulty of diagnosis between disease of the appendix and the gall-bladder. He found himself, then, in very good company, for Dr. Morris Richardson of Boston details a case of suppuration of the gall-bladder, which simulated appendicitis so closely that the Doctor didn't know until

he got inside. No one has had more experience in such cases than Dr. Richardson.

Dr. Carmalt mentioned a case which had been in the hospital for six months, and which a hospital staff of seven men agreed upon as an extra-uterine fetation. An abdominal section revealed the fetus where it ought to be. The mistake was due to an absolutely characteristic and typical history. Physical error was due to abdominal contraction, which is not overcome until ether is administered, and ether is not generally given until the abdominal section is made. This woman, the one spoken of, had well-marked firoid tumor with pedicle. This tumor was removed. The error of diagnosis was due, as has been said, to contraction of the abdominal wall, which deceived such a number of men. It is just as well to feel a little modest regarding our statements of diagnosis. An absolute diagnosis can sometimes be made only by abdominal section and in such cases an exploratory operation is justifiable. We may be justified in making an abdominal section for diagnostic purposes.

Dr. Harris in answer said that the diagnosis of fractures of the scaphoid was given by Dr. Stimson and that it was a medico-legal case. It had been treated for a Colles's fracture. The skiagraph showed that it was really a fracture of the scaphoid.

Extra-uterine pregnancies, said Dr. Harris, have been epidemic in Norwich. Dr. Tingley called him in consultation to see a case of a woman with a tumor. There was a question as to whether this was a fibroid or an extra-uterine pregnancy. An operation was performed and a tubal pregnancy found, the fetus having been dead a year, but still in good preservation. The tube was removed close to the uterus. The patient made a good recovery.

Another one was a colored girl with a supposed fibroid. Both a fibroid tumor and an extra-uterine pregnancy were

found. The fibroid and the sac were removed, but the patient died.

Dr. Tingley showed the pathological specimen of the first case cited. It was marked as follows: Fetus, Placenta and Sac of Extra-Uterine Gestation, Removed from the Abdomen of Mrs. Z—, May 18, 1898 by Dr. Tingley. Sac, with contents, had remained in the abdominal cavity over one year after the completion of the gestation period, at which time she had labor pains and a physician was called to deliver the child. Weight of fetus four and three-quarter pounds.

Dr. Wiggin said that he had been much interested in the report. He was interested most in the allusion to anesthetics. He had been trying the new anesthetic, petroleum ether; had used it in the City Hospital in New York. He had had one or two cases of heart-failure, and had given it up. He saw no advantage over the old manner, with a closed inhaler. He used a modified Clover. There was no excitement and no greater quantity of ether. He afterwards got Dr. Squibb to make an examination and it was found that what he had been using was an equivalent of alcohol, chloroform and ether mixture, and was not petroleum ether. He had used nitrous oxide and ether, and finally ether after Bennett's method. In abdominal work one of the greatest sources of danger was the mal-administration of ether. For the last six or seven years he had found the closed inhaler satisfactory. The patient seldom vomited and was able to take food a few hours after the operation. Four ounces of ether were sufficient for an hour's work, and six ounces for two. The length of time of the operation was of less consequence than a limited amount of ether. If six ounces were used in two hours it was better than if ten or twelve ounces had been used in an hour.

Dr. Hawkes had not had much experience with the

actual cautery in hypertrophy of the prostate, but had used electrolysis in the urethra, carrying one electrode up to the prostate, beyond the sphincter, placing the other in the anus, opposite the sacrum. In cases where the urethra was sensitive one electrode was carried up to the prostate in the anus, while the other was placed above the symphisis. The treatment was modified according to the excitability of the urethra. It was not followed by scar tissue. He would not be willing to give up electrolysis in such work.

Dr. Gouley is much interested in the discussion about the prostate. Much is heard about therapeusis which is not based on sound pathology. Methods were being suggested for treatment of enlarged prostate as if it were one fixed morbific quantity, whereas it may be the result of several different morbid conditions. He has traced thirteen varieties of enlargement of the prostate. Can any one method of treatment apply for all? The rational method of treatment is to find the morbid condition. Nasciet, to whom we owe our first studies in prostate disease, based his methods of treatment on the form of the disease. His success was good. In certain cases, where there was little enlargement and a small obstruction at the base of the bladder, an incision was made Where there was an enlarged third lobe, this was excised. Some of his followers were unsuccessful. Some of them operated on a disease too far advanced and death was due to pyonephritis. Among later operators, Battini used the galvano-cautery fifteen years ago. He still pursues the same method for diseased prostate. He claims more than I think he has done. I condemn it as bad practice. Electrolysis destroys the prostate. What occurs after, I do not know; I have had no experience. I do not feel disposed to employ it. In that form described by Mercier, with dilatation of the acini, the more common form, the promising operation is enucleation of the prostate.

This has been done in London—complete enucleation of both lateral and the third lobes. Much will come of it. If enucleation is done early in the disease there will be fair results, so far as urination is concerned. The object is to make continuous urination possible. This is coming rapidly. Dr. Alexander has had excellent results. In orchodectomy, how was that going to cure cystitis? Dilated acini, so large that they can be seen with the naked eye, how could orchodectomy cure such a condition? I fail to see. I do not wish to condemn it, but it does not seem rational. The mortality from orchodectomy is greater than that from excision of the prostate. With the Mercier operation of enucleation bi-manual manipulation above the pubes, and in the perineum, while enucleation is being done, there is little hemorrhage, and the recoveries are great. The best results are given by Alexander, but the totality from orchodectomy is greater than from prostatectomy.

A COMPLICATED CASE OF INTUSSUSCEPTION.

MELANCTHON STORRS, M.D.,

HARTFORD.

We will first give the outlines of the case as taken from the records of the Hartford Hospital:

"John Curran, admitted September twenty-fourth, 1886, aged twenty-one. Buffer by trade. Family and personal history negative. Has had obstruction of the bowels since the eighteenth, six days ago. At that time he had diffuse pain over the right side, with tenderness over the appendix; since that time there has been no marked pain or soreness on pressure. Attempts were made to move the bowels by cathartics and enemata, but without success. Vomiting commenced on the afternoon of the twenty-first and became fecal on the following day. On admission the abdomen was somewhat tympanitic on the left side, dull on the right. Palpation negative on account of tension of the abdomen. Pulse and temperature normal, and general condition fair, but countenance anxious. Etherized and abdomen opened by incision over the appendix. Caecum slightly congested; appendix thickened, containing a fecal concretion, which was removed. The distended coils of small intestines were dragged out and the cause of the stoppage found—an intussusception of the ileum of about eight inches in length. The gut for several feet above this was dark, much distended, and paralyzed. The invagination was reduced without injury to the peritoneum and at the apex was found a diverticulum the full size of the intestine, and four inches in length. This itself was invaginated into the gut and had apparently started the trouble. The diverticulum was ligated and removed,

closing the wound with Lembert sutures. Pulse at close of operation weak but steady; improved under stimulus.

"September twenty-fifth general condition about the same. Patient continued to vomit a dark, greenish, black fluid; abdomen very tympanitic.

"September twenty-sixth, vomiting continues. Twenty-seventh, vomiting has decreased to-day; large quantities of flatus passed by mouth. Twenty-eighth, bowels moved this morning and there have been several normal but loose passages since. General condition improved and a steady and rapid improvement has gone on, and the patient is now convalescent."

At the time of the operation it was not considered as a clear case of appendicitis, but the obstruction and vomiting was so urgent that an exploratory incision seemed to be justified. The congested, tender and enlarged appendix containing in its extremity a fecal calculus probably excited the first vomiting, which in turn produced the invagination of the diverticulum, which occasioned the intussusception. The case is related for the great infrequency of the special features of this intussusception.

Treves of the Royal College of Surgeons in England, in his work upon Intestinal Obstructions, in the chapter of the causes of Intussusception, says: "One of the most remarkable cases of invagination is illustrated by a specimen in Guy's Hospital Museum that is probably unique. It shows a small and short Meckel's diverticulum springing from the lower ileum. This diverticle had become inverted so as to project into the lumen of the intestine and when in that position had led to the formation of an intussusception."

We find no other similar case on record. In fact, the existence of Meckel's diverticulum is comparatively rare. I have never met with it before. Dr. Knight, many years the pathologist of the Hospital and who has made many

hundred post-mortems, informs me that he has never seen it. It is possible that these two cases of an intussusception in connection with Meckel's diverticulum are the only ones ever seen. With the exception of the accompanying appendicitis, the two cases are alike. In this case the intussuscipiens contained a large mass of the mesentery, which accounted for the dark and congested bowel. The recovery from such complicated conditions —as a week of stercoraceous vomiting, the removal of the appendix, the disinvagination of the bowel, the ligation of the diverticulum, and the engorged intestine—is indeed noteworthy, and we venture to say in recovery, unique. The patient left the hospital October thirty-first entirely well. We saw him a few days ago at his work, looking well, and he informed us that he has had no trouble whatever.

SURGICAL PUERPERAL SEPTICEMIA.

Samuel M. Garlick, M.D.,

BRIDGEPORT.

It is not fully recognized that puerperal infection is wound infection, and, so far, is like any other simple wound infection. This principle has greatly simplified the matter both in theory and in practice, and leads to the adoption of well-known surgical principles of treatment. At this day, then, puerperal infection is due either to toxins, or to a pathogenic infection.

If of the former, that is, to toxins or non-pathogenic germs, it is called "sapremia"; when of the latter, that is, to pathogenic microbes, it is "septicemia." In the first, which is by far the more common form, the elements of putrefaction tend to remain localized in the uterus, the site of origin. It is, therefore, more easily controlled and made subject to proper and curative treatment.

The second form, "septicemia," although happily more infrequent than the first form, is much more virulent, for which virulence it depends upon the rapid multiplication of pathogenic germs easily and rapidly distributed through the system. Here, then, we have to deal with not only a local, but also a systemic infection, with multiple foci of re-infection. By a delayed or improper local treatment, the first or less virulent form may pass over into the second; that is, a "sapremia" may be converted into a "septicemia."

It is almost impossible entirely to separate the medical and the surgical treatment of this condition. While the medicinal treatment may be confined strictly to itself, the surgical treatment, on the other hand, cannot be limited to strictly operative measures.

IMMUNITY AND PROPHYLAXIS.

Immunity from puerperal fever must depend chiefly upon cleanliness in the lying-in room. Prophylaxis, however, must begin weeks before labor, for even though puerperal sepsis is perhaps a preventible disease, we do not concede that for the occurrence of sepsis, the attending physician "must hold himself solely to blame." In prophylaxis all constitutional conditions must be considered; malaria, la grippe or other form of paludal poisoning, rheumatism, anemia, syphilis, various forms of debility, individual cleanliness and personal surroundings. The condition of the bowels and the normal activity of the kidneys should have careful consideration, in order that no excrementitious waste be retained in the system. This matter of internal cleanliness, is, perhaps, of no less importance than that of external cleanliness. Again, the vaginal discharges demand a share of attention. Are they fetid in character? Do they excoriate the skin? Is there a gonorrhea?

In this ante-puerperal, no less than in the post-puerperal stage, there is opportunity for the exercise of the wisest discretion and most skilful treatment. Thus may we also guard most efficiently against auto-infection.

Iron, bitter tonics, nerve sedatives, mild, active or antiseptic laxatives, diuretics, etc., according to the local organic condition, all come in for due consideration, and each in its own degree is available as a prophylactic measure. After all this preliminary attention immunity must be attained by the careful and cleanly conduct of the case at time of labor. Happily the records of service in the worst tenement districts of our large cities, show that immunity can be attained under the most undesirable conditions and even with absolutely filthy surroundings. Assuming, then, that in the neglect of or even in spite of all the preliminary care thus outlined, puerperal sepsis does occur, what is to be our treatment surgically?

THE TREATMENT OF THE MILDER FORM.

First: As before stated, this at first, at least, is of purely local origin, caused by the presence of putrid material; for instance, a portion of retained placenta or a decomposing blood-clot. Hence the treatment should be first to favor local conditions. Tears of the vagina, even small abrasions of the mucosa should have the most careful attention.

Second: Remove the putrid or decomposing mass, whether small or large. For this removal nothing yet devised, equals curettage, either with the unaided finger or with the curette, dull or sharp, either of which is an artificial finger having increased length and diminished sensibility. I would call the unaided finger a "sentient" or "sensitized" curette.

THE METHOD OF CURETTING.

First explore the uterine cavity with the finger, or carefully with the dull curette preferably, but not necessarily under an anesthetic. If a portion of placenta or other debris is found still retained in the uterine cavity, carefully, but none the less thoroughly, remove it, so as to leave a clean uterine mucosa.

I would distinctly impress the importance of going to the mucosa but not into it. Do not forget the two varieties of puerperal septic conditions, or the putrid and the septic. In the putrid (sapremic or local form) there is beneath the putrid mass a layer of leucocytes (granulation layer), a barrier to the microbes which are endeavoring to gain entrance into the system. If this barrier of leucocytes be broken down by the curette or finger, the local infection would more easily, if not almost surely, become a general infection.

IRRIGATION.

Next let the uterine cavity be irrigated freely with sterile water, normal saline solution, or antiseptic douche, followed by sterile water, hot.

The uterine cavity being cleaned down to the granulation layer and satisfactorily douched, it is my practice to introduce a strip of sterile gauze folded upon itself, and either passed in loosely as a drain and to keep the cavity open, or packed closely to stimulate contraction. If the operation is done early, say within the first twenty-four hours after labor, I pack snugly to stimulate uterine contraction and thus favor involution of the uterus. Contraction is to be further aided by competent doses of strychnia, ergot and cannabis indica. A favorite prescription is:

℞
Ext. Ergotinae..... gr. i—iii
Strych. Sulph..... gr. $\frac{1}{60}$
Ext. Cannab. Indic .gr. $\frac{1}{6}$

or

℞
Ergotinae.....gr iss
Tinct. Digitalis....m. iii
Quin. Sulphat .....gr. ss
Every four to six hours.

If the operation be done later, especially if there be possible sepsis, the packing should be done very lightly, simply to keep the cavity open to favor further inspection and treatment if required. The gauze may remain in twenty-four hours, but should almost certainly be removed by the end of thirty-six hours. Gauze may be iodoform, plain sterile, or it may be wet with absolute alcohol, as recommended by Dr. Grandin of New York.

With the latter form I have no personal experience, but am most favorably impressed with the idea. Knowing that the normal puerperium is free from marked constitutional symptoms, such as chills, fever, sweats and arrested lochia; and further knowing that the gravity of the disease depends largely upon the form of micro-

organism introduced, we should on the first advent of these symptoms, suspect a possible infection and institute a careful and thorough local examination and ocular inspection.

Not only should the microscopical appearance be considered, but a microscopical examination of the secretion should be made also. Thus there may be found that most virulent and alarming of all forms of micro-organism, the streptococcus or the less active staphylococcus, the bacillus coli-communis, and gonococcus, either alone or mixed. If the former be found, death may and probably will result in a few days unless their development and growth can be arrested; if the latter be found, singly or mixed, the chances of improvement are greatly enhanced.

Our first effort is to remove and destroy all such as may be superficially placed, by a single douche, cleansing and antiseptic, vaginal or intra-uterine, and then since these micro-organisms require moisture as well as heat for their growth, render the cavity dry by light packing with gauze, either medicated or plain, this to be gently removed as soon as they become moist, and the cavity repacked.

Remember that antiseptic douches fail to reach the infecting germs, and frequent douching destroys the germicidal property of the natural secretions, which are acid, and to germs other than the gonococcus, are actually destructive.

Our efforts to localize the poison failing and a general peritonitis following the septic metritis, we are brought face to face with one of the most alarming conditions which a surgeon has to meet. Systemic infection is rapid, depression of the vital forces is alarmingly great, and the formation of pus, localized or disseminated, takes place surprisingly quick. Then we must follow the old and safe surgical rule: "Evacuate the pus and drain downwards if we can, but evacuate and drain we must,"

and that, too, at the earliest satisfactory evidence of its existence. Allow no unnecessary and destructive delay.

CURATIVE MEASURES.

Do not be in haste to remove infected organs in puerperal infection. If the uterus and adnexae are so far infected as to make extirpation necessary, it is then, in my experience, also likely to be useless. It is further to be said that in puerperal infection, recovery if it occur, is much more likely to be with intact or useful pelvic organs, than is apt to be the case where the pelvic infection is from some other source. Exudates are often spontaneously removed, enlarged and sensitive adnexae restored to usefulness. Ablution of these adnexae, hysterectomy and such radical operations are abundantly proven to be of doubtful value if not absolutely destructive of life.

To combat the systemic depression, we must use strychnia, digitalia, nitroglycerin, and opium or its available alkaloids; nutrition in the form of peptonoids, peptones, milk, etc., to the limit of usefulness, by the stomach, and to the limit of toleration by the rectum. Saline solutions, both per rectum and intra-venous, are very useful and not to be overlooked.

Regarding the use of serum injection I have not much to say. The cases in which I have used it or where I had an opportunity to observe its use, have been few and fatal. They were almost certainly so before the serum was introduced. I shall not abandon its use, but until more favorably impressed regarding its value, shall use it only in conjunction with other measures.

SUGGESTIONS AND RECAPITULATION.

I. In curetting have care not to bruise the mucous lining of the uterus, and if true septic condition exist, repeated curettment or repeated douching can only be harmful. If raw, gangrenous or sloughing areas are

found on vulva, vagina or cervix, they may be touched up with tincture of iodine, pure carbolic acid or nitrate of silver; and in purely septic cases, the entire uterine cavity may be painted with the same or with iodized phenol solution.

II. As little general disturbance of the patient as possible; use a soft, flexible catheter, well sterilized, which may be left in place.

III. Microscopical study of the discharges, having especial care to obtain a specimen from the uterine cavity.

SYSTEMIC TREATMENT.

IV. Control the local sepsis, improve the soil in which the microbes grow, combat the systemic intoxication, sustain vital forces. To this end we use alcoholic stimulants, tonics, eliminants, alimentation; the first in large amount and varied in kind; the second to hinder waste, promote oxidation of toxins and of tissue-waste. Strychnine, gr. one-sixtieth to one-thirtieth once in three to six hours; quinine in small amount, gr. two to four, once in four to six hours; digitalis, small doses prudently with nitroglycerin; ergot or ergotin to limit diffusion of poison from primary focus in uterus; sparteine, gr. one-fifteenth to one-tenth; caffeine, gr. two to three pro. re nata; both exceedingly useful to sustain cardio-pulmonary innervation, and to sustain the force of circulation.

Of eliminants, no one alone is superior to pure water, plain or carbonated, to a degree of satisfaction or to the limit of toleration by the stomach, diuretics according to discretion, especially mild alkaline waters and warm drinks. Saline cathartics should not be overlooked, but judiciously used. Abundance of pure air and in conjunction and as an adjuvant of the same, oxygen gas, pure or with one or two per centum of nitrous oxide.

V. Reduce the high temperature, if 102° or more,

Cool sponging reduces temperature, favors elimination and aids oxidation; cool drinks likewise. Have care to avoid depression by extreme refrigeration; to this end avoid the coal tar derivatives and other depressing and non-eliminating antipyretics.

MALARIAL POISONING.

VI. While malarial poisoning is not now as common as formerly believed to be, still its possible presence must not be overlooked. In all cases examine the blood for plasmodium malariae. None of us who have practiced in this vicinity fifteen or more years, but can recall cases of abortion or of premature labor or of childbed fever, of undoubted malarial origin.

VII. Avoid extreme haste to do radical operations in puerperal cases. Repeatedly have we seen extensive pelvic exudates recover by ordinary surgical measures, large abscesses by spontaneous rupture, and subsequent recovery without any surgical measure, and pregnancy occur, followed by normal delivery.

VIII. Among other measures for tiding over periods of great depression and collapse, the continual or frequent use of oxygen is not to be forgotten, also lavage of the blood and tissues by saline injections; sodic chloride, dr. one and one-half; sodic sulphate, dr. two and one-half; water, pints, two, either per rectum, subcutaneously or intra-venously, has often proved exceedingly useful.

In conclusion, it must be admitted that the medical and the surgical treatment cannot be altogether distinct; there is no purely medical case which may not immediately require surgical measures, and no surgical measures which are not of necessity combined with therapeutical treatment.

Again, while much has been accomplished within recent years by way of perfecting our knowledge of the cause and origin, and thus much also for the prevention,

"comparatively little has been added to our medical resources for the cure of puerperal septic disease." As Ribis says: "Our duty is to exalt vitality, increase the energy of vital reactions, and improve the soil in which the parasites grow."

To this terse sentiment I add, "the surgical treatment is, remove parasites, destroy all that remain, and if after this 'ounce of prevention' sepsis occur, and thus the 'pound of cure' becomes a necessity, treat surgically each complicatory factor as it arises."

OBITUARIES.

That we shall die we know; 'tis but the time,
And drawing days out, that men stand upon.

JULIUS CÆSAR, Act III. Scene I.

HULL ALLEN, M.D., MILFORD.

By E. B. Heady, M.D.

MILFORD.

Hull Allen was born in Westport, May sixteenth, 1798. He died in Milford on the first of September, 1896. He was educated in the schools in his native town, and then went to Elizabeth, N. J., where he commenced the study of what became his life-work, medicine. He attended lectures in New York City. He received his license to practice from the University of New York, in 1821, and came to Milford during the same year. Dr. Allen was married three times. His first wife was Miss Susan Platt. One daughter of this marriage, Miss Sarah Allen, survives him. The other, Mrs. Elizabeth Street, died many years ago. The second wife was Miss Elizabeth Clark, and the third Miss Susan Phillips, of Fishkill-on-the-Hudson, who died April 5th, 1896, aged eighty-nine. There are two grandchildren, Lilly, the wife of Symons Hutchinson, of Trenton, N. J., and Edward E. Street, the Assistant City Clerk of New Haven. Dr. Allen adopted his granddaughter when she was an infant, her mother dying shortly after her birth, and until her marriage, three years before his death. She was as a daughter to him in her love and devotion. He was much attached to his two daughters, as he called them.

Dr. Allen's only son, at the age of fourteen years, was instantly killed by the kick of a horse. The loss was a severe one for the doctor, as he anticipated his son would follow in his profession, and he could lean upon him in his old age.

Dr. Allen was the oldest physician in the Connecticut Medical Society as well as the oldest physician in the New England States. Dr. Allen was also a member of the

American Bible Society, the American Tract Society, and the Advocate and Guardian Society. He joined the First Congregational church in Milford in 1828, and until his death was a devoted member of the church of his choice. Attention to his practice, and advanced age, prevented him from doing much active church work, but he always gave liberally to all her interests.

Dr. Allen was a skilful physician. His clear judgment and skill were much valued by his medical brethren, who frequently availed themselves of his advice in consultations.

He was noted for his attention and faithfulness, pleasant manners, happy disposition and words of encouragement to his patients.

After fifty years of work in his chosen practice, Dr. Allen attempted to retire from active practice. Families whom he had attended for years were deeply and lovingly attached to him, and were unwilling to give the "family physician" up, and until a short time before his death, he continued to prescribe for some of his oldest patients and friends. He was devoted to his profession; he refused all petty offices, town or state. His friends and patients were in both parties, and he avoided ill feelings arising from politics.

He often remarked that he never "sued any one nor never was sued." He was very kind to the unfortunate, often inviting them to his home to enjoy his hospitality. He was very kind to the poor. Dr. Allen possessed a happy, cheerful disposition, always enjoyed a joke, enjoyed society, was interested in town affairs, enquired regarding the meetings of the Medical Society until a few months previous to his death. He enjoyed life as long as he lived. He retained his mental and physical powers to a remarkable degree, and at the advanced age of ninety-eight, after a few hours of illness, without suffering passed away.

WILLIAM ROWLAND BABCOCK, M.D., NEW LONDON.

By Edward C. Chipman, M.D.,

NIANTIC.

The late Dr. William Rowland Babcock was born in Lyme, April 2, 1872, and Lyme remained his home until his death, with the exception of a few months which he spent in his short but brilliant practice as a physician and surgeon.

Early in life he gave evidence of both physical and mental activity. He began at the age of seven years to sell papers, and from that time until his death he let no opportunity pass by which he might gain the means for an education.

After obtaining what education he could from the public schools of his native place, he entered the Morgan High School at Clinton, Conn., from which he graduated with honor.

He began the study of medicine under the direction of Dr. Terry of Lyme in 1890, and the following year, 1891, entered the College of Physicians and Surgeons, New York City, where he remained one year. He completed his course at the University of the City of New York, from which institution he graduated in June, 1894.

Immediately after graduating he received an appointment to The Workhouse and Alms Hospital on Blackwell's Island, where he served fourteen months, and from which place, in our opinion, he received the tubercular germ that cut short the life-work he had planned for himself.

In July, 1895, he came home and immediately chose New London as his field of practice. His rise was phe-

nomenal. His manner was so pleasing and his personal magnetism so great that he seemed to draw people to himself as a magnet would the iron filings.

He was one of nature's noblemen and this fact was recognized by high and low, rich and poor, professional and laymen.

His ability as a surgeon soon gained him an appointment to the New London Memorial Hospital, which came a few days before his last sickness. He was elected a member of the New London County Medical Association at its April meeting, 1896. He was taken sick with acute phthisis March eight, 1896, which he at once recognized and knew would be the finishing of his actice life-work. He rallied somewhat from his acute attack and sought for a locality where he might live as long and comfortably as the nature of his disease would allow him. He first went to his home in Lyme, thence to Saranac Lake, N. Y., thence to Orlando, Fla., where he died December six, 1897, a victim to that dreadful germ which we, as medical men, ought to strive by every means possible to banish from our midst.

JOHN CALVIN BOLLES, M.D., OF MONTVILLE.

By William M. Burchard, M.D.,

UNCASVILLE.

John Calvin Bolles, the youngest child of Calvin and Hester Darrow Bolles, was born in the town of Montville, September eighteenth, 1816. His father was a tanner, and after assisting at his trade in the intervals of attendance on common school, he, at the age of twenty began the study of medicine under the late Dr. J. R. Gay, of Montville, and, after attending medical lectures at Pittsfield, Mass. and Woodstock, Vt., graduated from the University of Vermont in 1840, and from that time to within a year of his death continued the practice of his profession in Montville and adjoining towns, his office and residence being within a few rods of the homestead where he was born.

He inherited from his sturdy and long-lived ancestry a strong, square, massive frame and the strongly-marked and rather heavy cast of features that we associate with the typical Englishman, and his mental characteristics corresponded with his physique. He was cheerful and cordial, but not effusive in manner, well-informed, had strong common-sense and good judgment, lacking perhaps, that instant intuitive grasp of the salient points of a case that some physicians possess and others acquire; his observations were accurate, his conclusions logical, his treatment careful and conservative, and his attendance on his patients faithful and untiring.

Although he was not quick to adopt new theories or try rash experiments, he proposed to keep up with the advance of the profession. Joining the New London County Medical Association in 1841, and being elected a Fellow in 1849, '55, and '58, he remained a member and

regular attendant at its meetings for fifty-six years. It can be said of him that the indescribable vexations and annoyances of fifty-five years of country practice, unbroken by a single vacation, did not put an edge on his even temper, and his patience was inexhaustible.

He was a Republican in politics, but never accepted any office, which was unfortunate for the town, as, unlike most physicians, he was an excellent business man, and his clear legible entries of Vital Statistics are almost the only reliable records prior to 1860. He was a member of the Baptist Church for thirty-five years, and in every way a reputable citizen.

His domestic life was most happy. He married in 1843 Eunice Buddington of Groton, who survives him, as also his two children, Harriet E. (widow of John W. Hanna) and John C., Jr.

To have lived more than fifty years without death, illness, or other misfortune invading the home is granted to few men. It was only within the last two or three years that the infirmities of age laid a heavy hand on him and vision began to fail from cataract. Other symptoms of atheroma showed themselves in the brain, heart and kidneys, and death ensued from nephritis and dilatation of the heart, September eleventh, 1897.

The attendance on his funeral and the universal sorrow exhibited, showed that his life's work was well done and that he left no enemies, only friends.

FRANCIS LEMUEL DICKINSON, M.D., OF ROCKVILLE.

By Melancthon Storrs, M.D.,

HARTFORD.

Dr. Francis Lemuel Dickinson, who died June 2d, 1897, was one of the oldest physicians in Tolland County. He was born in Portland, Conn., January 29, 1817. He was the only child of Lemuel and Sarah Dickinson. His father died when he was a year old. He was comparatively a young man and we know but little of his history. He served in the war of 1812. His health became impaired and soon after his marriage he went to the West Indies for a change of climate, and died on the return voyage. His mother, a most estimable woman, removed with her young child to the home of her parents in Colchester, Conn. Here Dr. Dickinson passed his boyhood life and prepared for college in Bacon Academy, in those days an institution of considerable repute.

After graduating from the Academy he taught one term in Wethersfield and two in Vernon. Having decided to give his life to medicine, he entered the office of Dr. Frederick Morgan of Colchester, a man of the highest standing, and who, in his earlier life, had been a successful tutor in Yale. He would inspire any young man with a conscientious love for his profession. Later Dr. Dickinson pursued his studies with Dr. Alvan Talcott of Vernon. The writer has often heard him allude to these men in terms of highest regard.

Dr. Dickinson graduated in 1840 in the Yale Medical College. The spring following he went to Hampton, Conn., to practice, but from an attack of typhoid fever and hemorrhage he was obliged to return to his mother's

home. Regaining his health, he was married September twenty-eighth of the same year, 1840, to Miss McLean, daughter of Colonel Francis McLean, one of the pioneer manufacturers of Vernon. He then located in Willington, the successor of Dr. Alden Skinner who had just removed to Vernon. Willington fifty years ago was a thrifty country town. He grew into a large practice, which extended to all the surrounding towns.

It was a hard and wearing life, and he resolved to make a change. It is an experiment for a physician rooted for more than twenty years in a place to try a new field. In 1863 he removed to Rockville. He soon congratulated himself on the change made. Business was easier and more lucrative, but in the last ten or fifteen years his business had necessarily been curtailed by certain infirmities which long and rough riding aggravated. But, notwithstanding, he continued to practice till within a few weeks of his death.

As a medical man he would be classed among the conservatives, yet he was a growing physician. Every year broadened him, and though he left to others the original work of investigation and the formulation of new theories and methods of practice, yet it came to him, as to most of us, to test the new discoveries and the new methods of medicine. Such men are more needed in the profession, though their career is marked with less brilliancy. Dr. Dickinson was a good observer, of quick perception, and had a large share of good common-sense. He was a kind-hearted, conscientious man, and gained the goodwill and respect of all in and out of the profession. He was a member of the Tolland County and State Medical Societies for more than fifty years. The record shows that he was often elected a Fellow to the State Society. He contributed little or nothing to the printed literature of medicine, but in these days, when so much is written for a purpose, this characteristic seems

almost a virtue. But he had an intelligent opinion which he had the ability to make others understand. We recall a vigorous address made by him in the State Senate denouncing the crooked ways of one of the insurance companies, and demanding investigation. Had other Senators had his quick insight and his conscientiousness, a vast sum would have been saved to the insured, but delay, as he predicted, ended in total disaster.

We ask no apology for quoting from one of the local journals of his town:

"Dr. Dickinson was loved and respected by all who knew him. A man of high character and good judgment, his opinions were greatly prized, and he was often asked to give his view of matters of great importance by men in public as well as private life. To all he gave the most careful consideration, and in this way he held the respect of prominent men equally with that of the humblest citizen.

"A public-spirited man, he took great interest in town affairs. It was rarely that he missed a town-meeting, where his cooler judgment oftentimes brought about the settlement of perplexing questions amicably, and to the advantage of the town, whose interests he always jealously guarded, aiming always to act for Vernon's advancement.

"He was elected first selectman in 1880 and held the office for one year. Before coming to Rockville he represented the town of Willington in the State Legislature in 1850 and 1857. He was elected State Senator in this district in 1877, 1878 and 1879.

"Having lived a conscientious, upright life he was not afraid of death, and the end was as peaceful as if he were only falling asleep. As he lived so he died, a God-fearing, Christianly man."

Besides his widow, the loving companion of a long life,

he leaves three sons, all living in Rockville. He lost his only daughter, five years of age, in 1854. This was a severe blow to him. In the death of Dr. Dickinson I feel a personal loss and that I owe to his memory a personal tribute. He was the first to turn my thoughts to medicine. The few months that I was under his instruction he could not have done more for a son or a brother. It has ever been a pleasure to meet and to greet him. It was sad to feel that the end was approaching, but we can never forget the patient waiting and the calm and holy trust.

A large company of sorrowing friends attended his funeral.

CHARLES HENRY ROGERS, M.D., PLAINFIELD.

J. Bryden Kent, M.D.,

PUTNAM.

Dr. Charles H. Rogers, the oldest physician in town, died in Central Village, town of Plainfield, May twenty-third, 1897, from a complication of diseases, after a long illness, having endured much suffering with exemplary patience for many months.

Dr. Rogers was born in Pomfret, February sixth, 1818, of typical New England parentage. His father, Charles Rogers, combined the business of woolen manufacturing with the occupation of farming. His mother possessed a rare Christian character, and her influence impressed his entire life.

Dr. Rogers' advantages for early education, though somewhat limited were well improved. After spending two preparatory years in the Hartford Grammar School, he entered Yale College in 1840, whence he graduated with honor from both Academic and Medical departments in due time, and began the practice of medicine at West Woodstock in 1847. Here he married the youngest daughter of Dr. Thomas Morse and continued in practice until 1856, thence removing to Central Village, where the remainder of his life was spent in the practice of his profession, with the exception of a period of about one year, in which he gave his services to the Union Army, during the late Rebellion.

For the greater part of the time while in the service, he was located at Hatteras Inlet, N. C., and was placed in charge of the United States General Hospital, while there being tendered the position of Chief Military Officer of the post. He remained in charge of the hospital there

until he contracted diseases which compelled his retirement from the service, and from which he never fully recovered.

In consequence of this state of health Dr. Rogers was interrupted in his professional life by frequent intervals of pain and suffering; but notwithstanding this, he acquired a lucrative practice and his professional advice was often sought and highly esteemed by his medical associates.

Somewhat slow in forming an opinion on professional or other matters, he was also very tenacious of his convictions, never changing them, unless for satisfactory reasons. He manifested the utmost consideration for the welfare of his patients, proving himself a sympathetic friend as well as a skilful physician.

He was a sincerely religious man, and maintained a high standard of Christian living, which seemed sometimes almost severe; yet he constantly aimed for a still higher plane. He was an active, consistent member of the Congregational Church, and served as Church Clerk for nearly forty years, and for some time had been the oldest living member.

Foremost among those engaged in the promotion of all moral and social reforms, he fearlessly arrayed himself on the side of what seemed to him duty, regardless of self-interest.

He was a staunch friend of education, serving on the school-board of the town for sixteen years and declining further election, though strongly urged to continue in office.

In politics he was for the most of his life a Republican and his pastor has said of him: "He never divorced his citizenship from his Christianity, but strove to perform all his duties according to the Golden Rule."

Dr. Rogers was a valued member of the Connecticut

Medical Society, and of the Windam County Medical Association, and willingly accepted his share of those responsibilities.

He was a congenial man to meet both professionally and socially, as his colleagues can abundantly testify.

"He has learned that Death is master both of Science and of Art;
He has done his duty fairly and has acted out his part;
And the strong old Country Doctor and the weak old Country Doctor,
Is entitled to a furlough for his brain and for his heart."

ALBERT BROWNELL WORTHINGTON, M.D., OF MIDDLE HADDAM.

By Francis D. Edgerton, A.M., M.D.,

MIDDLETOWN.

Dr. Albert Brownell Worthington, born in Colchester, Connecticut, May twenty-third, 1819, was the son of Artemas and Clarissa Worthington. He was one of three brothers. The oldest, Artemas Ward, lost his life by the bite of a rattlesnake, the other died in an army hospital during the late Civil War. There were four sisters who lived to adult life. One became the wife of Judge Cyrus Mann of Hebron; another Mrs. Lathrop of Hebron; a third Mrs. Stark of Lyme; the fourth Mrs. Griffin, also of Lyme.

He received his preparatory education at the Bacon Academy in his native town, a school founded and endowed by Mr. Pierpont Bacon in 1800, a classical and English school which according to J. W. Barber, "has ever been considered one of the most respectable and flourishing academies of the State." Many distinguished men are among the alumni of this institution. He taught school at Portland and Middle Haddam. He attended lectures in New York, but received his Doctor's degree from the Medical department of Yale University in 1847.

He began practice soon after at Middle Haddam, having his office and residence in the house of Mr. Huntington Selden, who owned the steamboat wharf and kept a hotel on an eminence near the river. In those days most of the travel of the Connecticut Valley was by the river steamboats as there were no railroads below Hartford. Middle Haddam was then a busy market-place and at the wharves were, besides the daily steamboats to New York,

Hartford, New London and Long Island, many vessels discharging and receiving cargoes. It was while waiting for one of these steamboats, that Mr. Huntington Selden introduced to my father, the late Dr. Francis Griswold Edgerton of East Hampton, his guest, the subject of this memoir as "the new doctor" with an enthusiasm which indicated a cordial welcome by his landlord and a desire to bespeak for him a favorable appreciation. I well remember the scene, though a mere lad, the bright sunshine, the lovely scenery and the vivacious interchange of good feeling on the occasion. That introduction was the beginning of a very delightful acquaintance, of which Dr. Worthington says in a memoir published in the Connecticut Medical Society's Proceedings for 1871, "For more than twenty-three years Dr. F. G. Edgerton and the writer (Dr. Worthington) stood shoulder to shoulder, practicing in the same town after meeting at the bedside and many times having each separate patients in the same house, without having any difficulty and never meeting otherwise than as warm friends. But now we have met for the last time in this vale of sickness and of suffering; and my prayer to Almighty God is that through His mercy and the merits of His dear Son I may be permitted to meet him in that world where there is no more suffering and where the weary are at rest." The quotation tells the quality of Dr. Worthington's loyalty to his friendships.

Mr. Huntington Selden's daughter, Mary Elizabeth, became Mrs. Dr. Worthington July twenty-three, 1848—I am unable to ascertain whether it was the schoolmaster or the doctor who was first the lover. Dr. Worthington continued to live in the Selden homestead, so beautifully situated on the east bank of the lovely Connecticut. There his children were born, there he died and from there he was borne to his grave, from among his many friends and patients, who gathered to pay their last tribute of

love and esteem to one who had made himself so beloved by his many ministrations and acts of Christian kindness.

Mary Elizabeth Selden, the doctor's wife, was one of four children: David H., Henry H., and Lavinia, wife of Elias S. Hawley of Buffalo, N. Y., a distinguished lawyer. Dr. and Mrs. Worthington had three children: Albert Selden, who lives at Platte, Benzie County, Michigan, a farmer and supervisor for the county, born October ninth, 1849; Arthur Huntington, born January fourteenth, 1851, and Clara Louise, born July twenty-second, 1853. His son, Albert, has one daughter, the others are single. Mrs. Dr. Worthington died July twenty-ninth, 1892, after a married life of over forty-four years. Her death undoubtedly had a marked influence on the remainder of her husband's life, for the following August he took into partnership Dr. George N. Lawson, and gradually allowed him to care for all his patients. His failure was gradual, such as might be expected for a man who lived to within a few days of his eightieth year, through the busy, anxious life of a conscientious and faithful practitioner, but followed immediately after his wife's decease.

Dr. Worthington was an Episcopalian, as were his parents. His middle name, Brownell, was his parents' tribute of regard to their beloved Bishop, the late Bishop Brownell of the Diocese of Connecticut. He was a leading member in the parish church at Middle Haddam and served in the capacity of vestryman and warden even to the time of his death.

He became a member of the County and State Medical Societies as soon as he settled in Middle Haddam. He was a regular attendant at the County Association's meetings, and was held in the highest consideration by its members. They elected him to all the appointments of the Society, and he was often sent by them as Fellow to the meetings of the Connecticut Medical Society, where he was a familiar figure and took an active part. There

was a peculiarly pleasant personality about Dr. Worthington. He was a bright and interested listener, a man of the best ideas and many pleasing anecdotes and reminiscences, with a voice of musical quality, which of itself carried assurance to his patients and afforded an attractive presence. His social life at Middle Haddam was somewhat above that of the average village—easy communication with New York made it a place of resort for summer visitors and many retired merchants and ship-captains who had acquired wealth made it a place of residence. He was a good student of English literature and through his fondness for books was familiar with the standard authors and had a memory stored with many apt quotations. Gratuitous and devoted attendance upon the sick poor was a marked characteristic of his whole life. The continuous exercise of noble qualities through a long life develops a strong character, and such a man was the subject of this biographical sketch.

DR. ROBERT HUBBARD, BRIDGEPORT, CONN.

By Dr. Geo. L. Porter.

BRIDGEPORT.

"'Tis but a Tent where takes his one day's rest
A Sultan, to the realm of Death addrest;
The Sultan rises, and the dark Ferrash
Strikes, and prepares it for another Guest."

In Bridgeport, the sudden death of Dr. Robert Hubbard was recognized as a private loss and almost a public calamity. For forty-six years, as surgeon and physician, he had practised his profession in this city, was universally recognized as the foremost medical authority in this section of the State, was, fifteen years ago, acquainted with a larger number of our citizens and the dwellers in Fairfield County than was any other person, and such were his magnetic characteristics, that every acquaintance regarded him as a personal friend. There was good reason for this esteem. During all these years, as an exemplar of technical knowledge and manly self-reliance, he had inspired the despondent with hope, the anxious with confidence, and the sorrowing with consolation.

When in active practice, his words of good cheer brought to the patient trust and comfort, his wonderful analysis and grouping of symptoms, demonstrated professional ability, and his presence seemed to dissipate the gloom of the sick-room with the sunshine of his personality.. In all ranks of life, in the stately mansion of the rich and in the wretched room of poverty, his assistance was eagerly sought, and his coming was equally welcomed.

When to him had come the summons, common to all humanity, and his mortal remains rested in the house of death, around the open casket, embowered with beauti-



ful tributes of affection, passed an almost endless procession of young and old, who had been personal beneficiaries of his knowledge and skill, and to the minds of many of them the manly and noble features recalled occasions when, in desperate circumstances, by his instrumentality, their own lives, or the lives of those dear to them, had, under Supreme direction, been preserved, and in some, no doubt, bitterly awakened the regret that his acts of kindness and self-sacrifice had been often repaid by withholding that charity, which is most heavenly when "mercy tempers justice."

The ancestry of Robert Hubbard is of the early New England stock; the first members of the family in the New World settled in 1634, in or near Boston, Mass., but shortly thereafter removed to the vicinity of the present cities of Hartford and Middletown. His father, Jeremiah Hubbard, was, for many years, a sea-captain engaged in the West India trade, until he became a proprietor and farmer in Cromwell, Conn., where he married Elizabeth Roberts, the daughter of an extensive land-owner in Middletown, whose real estate included the beautiful site upon which was afterwards erected the Connecticut Hospital for the Insane. The advantages of country parentage to this boy, exercised in the often laborious duties of farm-life, practised in the out-door sports of river and field and woodland, matured by youthful responsibilities and influenced by the physical, social, religious and political atmosphere of Connecticut, established the foundations of the athletic body, the sound judgment, the superb endurance, the intellectual power, and the genial temperament which characterized the man.

He was born in Cromwell, Conn., April 27, 1826. He attended the public school; when seventeen he entered Cromwell Academy, there preparing for college. In 1846, he entered Yale and he was soon known as a bright and promising student.

At the end of the freshman year he was offered the position of principal of Durham Academy. Depending upon his own labors for support, he accepted, designing, with the means thus acquired, to complete the college course, and in addition to the new duties, continued his regular collegiate studies.

Desirous of a professional life, he readily accepted the invitation of Dr. Benjamin Fowler, then a prominent physician in the State, and with him began his medical studies; in the succeeding year, entered the office of Dr. Nathan B. Ives of New Haven, attended the Yale Medical School and was there graduated in 1851. His natural abilities, his studious application, his investigation and report upon the flora of New Haven County, his literary acquirements, established his collegiate reputation and by right made him the valedictorian of his class.

In 1851 he opened an office in Bridgeport, Conn., and also had charge of a private school until his professional work required an undivided attention, for his ability and remarkable success soon established a large and lucrative practice. In 1854 he formed a partnership, which lasted for seventeen years, with Dr. David Nash, his senior in years and in residence in Bridgeport. In social, as in professional, circles he was alike a popular member and a pronounced leader; in 1855 he married Cornelia Boardman, youngest daughter of Sherman and Sophia Hartwell, a lady whose personal grace and loveliness, intellectual ability, and patriotic and benevolent services have enshrined her in the memory of the older residents of our city.

To them were born three children: Sophia T., Sherman H., and Cornelia Elizabeth. Sophia married Charles M. Everest of Rochester, N. Y.; Sherman, Comete Lyndhurst, daughter of Chief Justice John Theodore Ludeling of Louisiana, and Cornelia, Courtland H. Trowbridge of New Haven, Conn.

Upon the breaking out of the Civil War, Dr. Hubbard was appointed by Gov. Buckingham, one of the examining board for the medical officers of the Connecticut regiments. In 1862, he was commissioned Surgeon of the 17th Conn. Vol. Infantry, which became a part of the Army of the Potomac. Active service in the field demonstrates most promptly the individual capability for the varied and responsible duties devolving upon a Military Surgeon. Hence his professional and administrative talents were soon recognized and he was promoted to the position of Brigade Surgeon and then to that of Medical Director of General Davis' Division, and shortly afterwards to that of Medical Director of the Eleventh Army Corps, Gen. O. O. Howard, commanding; in this latter office he served at the battles of Gettysburg, Lookout Mountain, Missionary Ridge, and Ringold. The duties were most exacting and exhausting; the fighting was often continuous for days, the armies were constantly shifting positions, the hundreds and thousands of wounded demanded immediate attention, field hospitals had to be frequently changed to be near the lines of battle, medical and surgical supplies had to be obtained by inadequate transportation; surgical operations, largely capital in their nature, and urgent in their requirements, allowed no rest night or day. The Doctor is said at this time to have labored for an entire week without sleep and with hardly any cessation of surgical work. Shortly after this campaign he was compelled by ill-health, to resign and he returned to Bridgeport. A severe attack of sciatica in 1870 compelled him to take a much-needed rest and he spent a number of months in Germany. In the succeeding year Mrs. Hubbard died after a protracted illness. In 1874-76 he represented Bridgeport in the General Assembly of Connecticut. In 1875 he formed a partnership with Dr. G. L. Porter. He was nominated by the Republicans of the Fourth Congressional District

as their candidate for Congress but was defeated by Hon. William H. Barnum, who was a patient and a warm personal friend. He received the news of his nomination at the home of Mr. Barnum in Lime Rock while in professional attendance upon him, and the incident created much pleasantry in the families. In 1879 he was President of the Connecticut Medical Society. During 1883-5 he spent much time in England and upon the Continent. In 1884 he formed a partnership with Dr. C. C. Godfrey, which was subsequently enlarged by the addition of Dr. S. M. Garlick and afterwards changed to the firm of Drs. Hubbard, Godfrey and Banks, and of this he was a member at the time of his death, July 18, 1897.

Shortly after the marriage of his son, he made his home with the newly-wedded pair, from whom, for many years, he received the most unremitting services of devotion, love and loyalty, which, after Sherman's death, were continued by his widow, and by her hands, at the Doctor's own death-bed, were performed the last sad ministrations of affection.

Much time during the last three years he spent at the summer home of his daughter, Mrs. Trowbridge, at Washington, Conn., enjoying the return to the country employments of his youth, when not interrupted by the urgent calls of the suffering of those in his immediate vicinity or of his patients in this city, for it was characteristic of his professional life that his patients thought when in desperate condition that no one else could do as much for them. For this reason he was often summoned to distant parts of the country, and could have had his time exclusively occupied with consultations. Before his severe sickness the amount of work he accomplished was almost incredible; in one year, in addition to an extensive medical and surgical practice, he attended over seven hundred cases of obstetrics, and a number of times he had charge of seven cases of confinement in one day. At

this time the majority of the women of Bridgeport would not be satisfied upon these occasions, with the services of any other practitioner, and in the practice of others, if the case was difficult, he was the most frequent consultant.

His professional attainments were held, by his patients and by the community, to be of so high an order that if a case of sickness terminated fatally and he had not been consulted, it was thought that a chance of recovery had been neglected, and if he had seen the patient, it was considered that the most approved treatment had been employed. A similar opinion of his abilities was entertained by the profession, here at home, and elsewhere.

Prof. Sands of the College of Physicians and Surgeons in New York once said at a clinic, "Gentlemen, this case was sent to me by Dr. Robert Hubbard of Bridgeport, whom I consider the ablest Surgeon in New England." Judge William D. Beach of New York, after listening to his testimony and examination in the famous Jacques mal-practice case, stated that Dr. Hubbard was the best medico-legal expert witness that he had ever met. Prof. Austin Flint of New York, President of the American Medical Association, whose personal acquaintance with the physicians of the country was most extensive, pronounced Dr. Hubbard the best general practitioner in the United States. Such testimony given by our most representative leaders of the Legal and Medical professions was not lightly spoken, but expressed a deliberate judgment. Their belief was endorsed by most of those who were brought into professional relations with him.

Upon what was based an opinion so commendatory, so unusual, and yet so universally entertained? Primarily upon his professional acquirements which were largely reinforced by the general success of his practice, by his personal characteristics, and his medical relations. Inclined to a medical life, his aptitude for study found

congenial exercise in mastering the principles of the foundations of scientific medical knowledge, in strengthening or criticizing theories by observations; in originating methods of operations, and combinations of drugs (and many of his prescriptions are to-day standard medical preparations); in investigating the development of the symptoms of diseases as affected by surroundings, by family and hereditary influences, and by mental peculiarities; and in unrelaxed efforts by reading, by correspondence, by personal acquaintance to keep abreast with the progress of medicine in its discoveries and their application. Alert in recognizing the valuable, he was not over-awed by novelty; he would "prove all things and hold fast that which was good." With surgical and gynecological appliances he was always abundantly supplied and for special requirements designed his own instruments and applications.

His own experience, constantly augmented in both civil and military service, by the large number of his patients and by his many consultations, for to him were brought most of the unusual cases in this vicinity, familiarized him with a great variety of diseases and with nearly all mechanical, poisonous, and gunshot injuries. His practice was not perfunctory; to the treatment of the individual, for the time of the visit, he gave undivided attention. Comparing the number of his patients with that of the average practitioner, it is fair to claim, that, during the forty years of his more active work, he treated as many different persons as any three of them would have done in the same space of time.

By this training his technical knowledge grew comprehensive and accurate. It was his custom to review, previous to the annual return of our climatic diseases, the standard works upon their treatment, as well as the most authoritative magazines, so that he entered upon every season freshly prepared for its special work. Fond

of botany, he made a study of the flora of New England and well knew the medicinal properties of our indigenous plants. He was learned in the classification of dermatology and skilled in its diagnosis. In medico-legal work he was painstaking in preparation, and in court was a clear, concise, convincing, cool, well-informed, ready, fair and reliable witness. In his professional relations he was courteous, honorable and friendly; prompt in recognizing ability and in bestowing praise, courageous in assuming responsibility, ready to aid a brother practitioner with words and acts, and was, to the young doctor, like an elder brother, magnanimously assisting him by his presence, his advice, and often to his cost, with his purse. His professional attendance in the families of his medical brethren, consuming much of his valuable time, was cheerfully and not grudgingly given. His generosity to the poor and unfortunate emulated that of the good Samaritan.

Previous to 1884, when the Bridgeport Hospital was opened, Dr. Hubbard performed most of the surgery of this vicinity. His office often resembled the operating room of a large hospital, both in the variety and gravity of the injuries and diseases. This semi-public work naturally brought him prominently before the profession and the people, and constantly increased his medical prestige. While in any community he would have been among the leaders, his reputation was emphasized by the fact that, for many years, with the exception of Dr. Bennett of Danbury, there was no prominent surgeon in Western Connecticut, and that in practice his brethren considered him without a peer.

The country doctors, with a few brilliant exceptions, previous to the seventies, observed the ways and methods of now almost obsolete customs, and had not then rejuvenated their medical knowledge by post-graduate

studies, nor by magazines, annuals, the latest text-books, and the latest modern appliances transferred to their offices the advantages of the library and laboratory of the schools, nor by the multiplicity of societies and hospitals established in every considerable town a medical center. Faithful to their responsibilities, but with few advantages, and with scant time to improve these, esteemed in their community but generally elsewhere unknown, compared with a leader of broad experience and wide reputation, they were the foothills that accentuate the lofty mountain. For this reason the professional preeminence of Dr. Hubbard dominated our medical field. For the same reason, no one will ever again attain, among us, a similar leadership, for by his efforts as a pioneer in modern medicine, through his own example and advice, and by the influence of his immediate students, he introduced city advantages into country methods, and directly and indirectly so raised the requirements and acquirements of our practitioners that never hereafter in Western Connecticut will the medical reputation of any individual be equally conspicuous.

The success of his professional efforts was generally recognized and through the prominence of his patients was widely known. Systematic observation and experience prolonged through many years had familiarized him with the symptoms, the progress, and the treatment of diseases, so that the more common sicknesses were to him as an open book, and the more unusual varieties were scrutinized by an intelligence naturally acute, and especially exercised in analytical and diagnostic judgment. In a case of special gravity, study, observation, investigation, ingenuity, were compelled to assist his efforts; sleep and time and rest were sacrificed to prevent the closing of the scissors by the last of the fateful sisters. As the patriarch at Peniel wrestled with the angel, so did he often combat the messenger of death, and although

he had many a fall, frequently, like Jacob, he prevailed.

The correctness of this statement regarding the success of his practice rests, in its last analysis, in the consensus of the public opinion of the community in which his life was spent, and, by this criterion, it is justified. It is also established by the letters of gratitude, and valuable honoraria from patients who believed that he had rescued them from the grave.

His professional attainments were engrafted upon personal attributes no less excellent. He was of commanding and dignified presence; his countenance betokened amiability, determination, courage, humor and intellectual power; his muscular strength was that of the trained athlete, his physical endurance was prodigious; his personal traits were sympathy, friendship, benevolence, bravery, honesty, magnanimity, independence; his mental characteristics were of an admirable quality, his memory was marvelous—the words of an author, read long before, could be correctly recalled; faces, once known, were promptly recognized; incidents of his social or military experience, historical facts, and particulars regarding individual patients were correctly detailed; apparently, what his observation recorded, his memory preserved.

He had an artist's appreciation of the grandeur and loveliness of natural objects, and took delight in observing, with the changing seasons, the beauty of the flowers and the marvels of the forests. His comprehension of the character and scope of general or technical subjects, and his command of language, always discriminating and often unique, gave a charm to his conversation and made authoritative his opinion.

His will was indomitable; once determined upon a course of action he only yielded to its impossibility. His judgment was based upon rare good sense, strengthened by good physical health, cultivated by scholarly pursuits,

developed by the daily problems of his social and professional work and matured by the solemn responsibilities involving life and death.

This excerpt, from the Bridgeport Evening Post, expresses the sentiments of the community in which he so long lived:

"Dr. Hubbard was a man who kept alive to all that makes for progress, not only in his profession, but in the world at large. His reading was wide and his acquaintance with all classes was far-reaching. The millionaire and the unfortunate wretch without a cent in the world were treated by the doctor in the same way professionally. He gave to both of his best and his memory will remain green in the hearts of 'all sorts and conditions of men.' He was one of nature's gentlemen and he went about doing good to all that besought him. Hypocrisy and shams were hated by the deceased physician, while all things honest, true and noble were his delight. The world has seen but few such men and our city, country and state are bereaved indeed.

No more shall that happy laugh and humorous story help along the carefully considered prescription. A life like Dr. Hubbard's should be measured by a nobler line than years. It should be counted by kind thoughts and not by the calendar. He lives the most who has done the most for humanity and Dr. Hubbard's life was spent in alleviating the physical ills of his fellowmen.

Dr. Robert Hubbard leaves to the profession the example of a brilliant practitioner and to those more intimately associated with him, the memory of a trusted physician, a beloved friend, and a typical gentleman.

"'Yon rising moon that looks for us again—
How oft hereafter will she wax and wane;
How oft hereafter rising look for us
Through this same Garden—and for one in vain.'"

HENRY SPALDING DEAN, M.D., OF SOUTH COVENTRY.

By Frederick E. Johnson, M.D.,

MANSFIELD.

January fifteenth, 1898, Dr. Henry Spalding Dean of Coventry, passed quietly away after a distressing illness of nearly five months, which was borne with the same patience and Christian fortitude which characterized his life. Dr. Dean was born in Holland, Mass., July twentieth, 1823. He early became familiar with the labor of the farm and in boyhood attended the common schools, finishing his preliminary education at Dudley and Monson Academies in his native state. He then engaged in teaching for several terms. His studies were pursued with his father, Dr. David Buck Dean of Holland, Mass., who practiced medicine for more than fifty years, also with Dr. William Sanders of Sturbridge, Mass., after which he attended lectures at the Medical College in Woodstock, Vt., at the Berkshire Medical College at Pittsfield, Mass., and at the Jefferson Medical College, Philadelphia, Pa., graduating at the latter institution in the spring of 1852.

Dr. Dean settled in South Coventry September twentieth, 1852. He married, May seventeenth, 1854, Miss Charlotte Curtis, daughter of Marvin Curtis of South Coventry. Her death occurred September thirty, 1896. For nearly half a century, Dr. Dean labored faithfully and untiringly, endearing himself to a large circle of patients and friends by his kind and loving ministrations, often denying himself needed rest while watching day and night by the bedside of the suffering. He was possessed of a fine mind, wonderful memory, rare judgment,

and was skilled in diagnosis. He was often called in consultation with physicians in surrounding towns and by his genial and courteous manner, his wise and helpful counsel, commanded their respect and love. He was a public-spirited man, unostentatious, but one of sterling integrity. His devotion to the rich and poor alike, without thought of remuneration, showed his unselfish spirit. He loved his profession, and his spare moments were spent in the study of the best medical works. Dr. Dean was a member of the State Society and the Tolland County Medical Association.

In politics he was a Republican, representing his town in the Legislature two years, 1872-1873, and was a candidate for Senator in 1888.

He joined the Congregational Church in Coventry January fourth, 1874 and held the office of deacon for more than twenty years.

The throng which assembled in this church to pay the last tribute to his memory testified to the love and esteem in which he was held, and as the months go by these friends realize more deeply their great loss.

Dr. Dean leaves one son, Curtis Dean, a highly respected lawyer of Willimantic, Conn.

THOMAS HENRY RAFFTERY, A.B., M.D., STAFFORD SPRINGS.

By Frederick W. Walsh, M.D.

ROCKVILLE.

Dr. Rafftery was born in Stonington, Conn., on the twenty-fourth of March, 1867. In his early days he attended the Bucklyn High school in Mystic. Afterwards he entered Holy Cross College, Mass., where he made his academic course. In the Fall of the same year he matriculated at the College of Physicians and Surgeons, New York, where he pursued his medical studies until his graduation in June, 1890.

In July, 1890, the month following his graduation, he began the practice of his profession in Stafford Springs, to which he applied himself with great vigor and considerable zeal. In a short time he was recognized by the general public, and I think by his medical brethren, as a man of marked ability and skill, and he speedily acquired a large and desirable clientage.

On January third, 1893, he married Miss Margaret Clark, who, with three children, two boys and a girl, survives him.

He had held different civic positions and was, at the time of his death a member of the Board of Education for Stafford. About April first he was taken ill, and it was soon discovered that he was suffering from an acute attack of Bright's Disease, from which he never rallied, passing quietly away at five P. M., on Sunday, April tenth, 1898.

SELDON WALKLEY NOYES, M.D., OF HADDAM.

By Miner C. Hazen, M.D.,

HADDAM.

If the place where a man first sees the light be his birthplace then Seldon Walkley Noyes was born in Haddam, September first, 1855. His father, Rev. James Noyes, was at the time pastor of the Congregational Church in Burlington and his mother, Esther Walkley, the daughter of Deacon James Walkley, came to her home on Walkley Hill a few weeks previous to be with her mother, there to suffer or enjoy the pains or pleasures of motherhood. So, reckoning as above, his life began, and, according to the quaint old Stearne, the more impressive part of his existence was previous to the date above given, and while he was in Burlington; and, to the credit of that town, it should be said, this man was born there.

The Noyes are an old and highly respectable Connecticut family, and until this last generation have had a clergyman as one of their representatives. Rev. James Noyes, the first, preached at New Haven in Colonial times, and in the crypt of the Center Church in that city may be seen his tablet. On his mother's side, the Walkleys are of the same respectable Puritan stock. In either family there is no male left to carry along the family name.

Young Noyes entered Wesleyan University in 1864 and after a few months was obliged, by reason of ill-health, to renounce his academic course. In 1865 he commenced the study of medicine in my office and was graduated M.D., at the University of Pennsylvania in 1868. He practiced his profession one and one-half years in Middletown, two years in Cromwell, and then retired from active practice, living at his home in Haddam. He was

connected with the Higganum Manufacturing Corporation seventeen years, only occasionally doing professional business. Since 1872 he had not been in any business and had not enjoyed robust health. In 1892 he went to Pasadena, California, for his health, having a pulmonary trouble, and, after six months, returned in comfortable health. In January, 1897, he went South on a pleasure trip with his wife and sister; was taken with an acute bronchial trouble at Atlanta, Ga., and from there went a second time to Pasadena. Here his health did not improve but rapidly declined, and he left the place in very feeble condition June twenty-eighth, arriving at his home July third, where he died on July twelfth.

Dr. Noyes was mentally well equipped for his profession but shrunk from its grave responsibilities, and, not being obliged to practice medicine for a living, relinquished it. He was especially skilful in physical diagnosis. He was a consistent, devout Christian, for many years deacon of the Higganum Congregational Church, a useful member of the Board of Education, and a valuable citizen. He left many warm personal friends and no enemies.

JOHN DWYER, M.D., OF HARTFORD.

By John O'Flaherty, M.D.,

HARTFORD.

John Dwyer was born in Templemore, County Tipperary, Ireland, about sixty years ago. He was the oldest son of Margaret Burke and Daniel Dwyer, who was a civil engineer of considerable reputation in the county.

Shortly after the death of his father, his mother and brother Daniel came to this country, leaving John to complete his education in Ireland. They came to Hartford, where Daniel learned dentistry, under the late Drs. Crofutt and Preston, and later became associated with the late Dr. John M. Riggs. Daniel was recognized as among the foremost men in the State in his profession. Dr. Riggs often told me that Dr. Daniel Dwyer was the most competent man in the State in the treatment of what is called "Riggs' Disease of the Gums."

John finished the course in the schools of his native town and then went to Dublin to a technical school, where he completed his education, receiving a certificate to teach in the highest grade in the national schools of his native country. He spent some years as private tutor in his native county, and also taught in the national schools until his health failed him and he went to Madame Stephen's Hospital in Dublin for treatment. His ability as a successful teacher was recognized by his colleagues, but he determined to abandon teaching and come to this country, where broader fields lay open for a man of his natural talents.

I have a letter written to his mother while he was in the hospital in Dublin, in which he took a most gloomy view of his own case, and feared he would never recover.

From the tone of his letters to his mother and brother in this city, I should judge that his trouble was of a nervous character, brought on undoubtedly by over-study and the cares and anxieties incident to school-management. About the close of our Civil War, when he had completely recovered, he writes to his mother and brother a most beautiful and touching letter, in which he expresses his great delight at the successful termination of the war.

Dr. Dwyer came to Hartford in the summer of 1867, and soon began the study of medicine, attending his first course of lectures at the Yale Medical School in the autumn of 1869. He finished his medical course at the University of New York, where he graduated in the class of 1871.

In the autumn of 1871 he commenced practice in this city, with an office at 19 Asylum street, where he remained until 1892, when he purchased the house on Charter Oak street, where he died, March twentieth of this year.

He was City Physician for four years, 1874-77, when he declined a reappointment, owing to his private practice, which by this time had grown to be quite extensive. During his term as City Physician we had an extensive epidemic of small-pox in Hartford, which made his duties quite laborious and trying, since the accommodations in the old building on Collins street were inadequate for the treatment of such cases. Dr. Dwyer often told me how difficult it was for him to do his full duty to those poor, unfortunate people who were sent to the pest-house, since the town authorities had great difficulty in securing proper persons to take charge of such cases. I think I can say with strict justice that no man as City Physician in Hartford had a more trying and arduous career than Dr. John Dwyer, as his term of office covered a most trying period in our history, owing to the great financial

depression in all lines of business, and the consequent great distress among the poorer people in our city.

Dr. Dwyer was a member of the Staff of St. Francis Hospital and since its organization always showed a lively interest in all matters pertaining to its welfare. He was a member of the Connecticut Medical Society, Hartford County Association and Hartford City Medical Society.

He devoted a large part of his leisure hours to the study of astronomy, of which he was passionately fond. He was the owner of a very good telescope in which he took great delight, and enjoyed showing his friends the beauties of the heavens. It was very interesting to hear him talk of the different comets, their discovery, date of appearance, etc. He was as familiar with the solar system and the various theories about the different planets as he was with the ordinary events of daily life. I was often amused and instructed at the animation and enthusiasm which he manifested when discussing the probability of the planet Mars being inhabited by a people like ourselves, or the truth of the statements made by recent scientists that in the near future we should be able to communicate with these distant people by telephone. He was quite confident that the atmosphere of Mars would prevent its being inhabited by the races which people this globe.

I think that if the doctor had devoted as much time to his professional studies as he did to outside matters, his standing in the profession would have been very high. As a mathematician he had few superiors. He was a great student of history and particularly fond of the history of the land of his birth. He was thoroughly well-informed on European political affairs, taking a most lively interest in questions relating to the social condition of the lower classes, and was always in full sympathy with those struggling for self-government, having no

regard for those who claimed to rule the masses by divine right. In the various and long-protracted struggles of the land of his birth for national independence he was ever out-spoken in denouncing the tyranny which deprived the people of their rights. He was an ardent admirer of Mr. Gladstone and often expressed to me profound sorrow that the "Grand Old Man's" cherished hopes could not be realized before his death.

The first great domestic affliction Dr. Dwyer experienced was the death of his mother in 1879, from which he never fully recovered. His filial affection for his mother, I venture to say, was never exceeded, and I can bear personal testimony to his profound and sincere grief at her death. The merest allusion to her in the years following her death would cause him to shed tears.

In 1891 his brother Daniel died, which again brought grief and sorrow to him, for they had been intimately associated for many years.

For the members of the medical profession he entertained the most sincere and kindly regard, and particularly for the older men in our ranks he often expressed to me his profound esteem. For the younger men, who were starting out in the battle of life, he had the most kindly feeling, and wished all a happy and prosperous career.

As a friend to the poor and as a physician, I think I can justly say that in my third of a century of practice in Hartford I never knew a man more kindly disposed to those wanting his services than Dr. Dwyer, and I am certain that the extent of his charity will never be known.

JAMES OLMSTEAD, A.B., M.D., OF MIDDLETOWN.

By Henry S. Noble, M.D.,

MIDDLETOWN.

Dr. James Olmstead, Superintendent of the Connecticut Hospital for the Insane, died at Hotel Grenoble, New York City, December fourth, 1897, after an illness of about two months, resulting from over-work, exhaustion of vital forces, and mal-assimilation of food. By his death the State was deprived of a public officer, who, during the entire period of his service, no one ever dared to hint that he was otherwise than honest, devoted and faithful. His constant endeavor was to administer the interests confided to his charge intelligently, faithfully and economically. He felt that he belonged wholly to the State which had called him to serve its interests in the administration of a great charity, and he allowed no private interest to interfere with his high ideal of duty.

The institution of which he was the honored head has sustained a serious, and, in some respects, an irreparable loss. Who but those daily associated with him can know fully what a conspicuous illustration of fidelity he was to the large trusts committed to him? Who but his co-workers can know of the keen sense of responsibility he felt for the care of the unfortunate victims of mental disease who were entrusted to his charge in ever-increasing numbers. No time, no pains, no strength, were spared if in any least manner he might minister to their comfort, happiness and restoration. We know of the sleepless nights he spent in devising means to care for the increasing multitude of unfortunates for whom adequate accommodations were wanting. His days and his nights were freely devoted to the problems which confronted him, and his only thoughts were how he might honorably

restore his charges to health, home and society. As the institution has expanded until it is now one of the largest in the country, the details of administration have multiplied; yet he gave his personal attention to all the minor operations which were constantly going on. He felt that he himself was personally responsible for the success of everything attempted. Not because of his distrust of the abilities of others in comparison with his own, for he was one of the most modest men I ever knew, but because he loved the mission to which his rare native gifts and acquirements were so unselfishly devoted. He could never be prevailed upon to take the rest he so much needed, because he claimed he was happier in his work. He was not so constituted that he could shirk the minutest detail. Nor did he thus devote himself body and soul to his appointed work through any hope of public recognition or self-aggrandizement, but solely from a sense of duty. He gave not only his time and money for the benefit of his patients, but gave himself, his life. Many are the instances where he has relieved the necessities of the needy from his private purse, and no one, even the recipients of his bounty, could discover the source of the benefactions, except in some accidental way. He never gave alms publicly for sake of applause. Always quiet and unostentatious, modest almost to shyness, he avoided public notice whenever it was possible. He hated shams of all kinds, and deception and equivocation were his special abhorrence.

He was a man of scholarly tastes and habit, and every moment that could be spared from the exactions of administrative work found him, book in hand, acquiring such information as he felt would the better equip him for his life-work and render him more useful as a public servant. His controlling idea, under all circumstances, seemed to be how he might better subserve the interests of suffering humanity.

Dr. Olmstead was born in New Haven, and was the

only son of a well-known druggist of that city. He was educated at Yale University, graduating third in the class of 1872. Upon receiving his academic degree he pursued the study of medicine in the Yale University Medical School, receiving the degree of M.D., from his Alma Mater. He served as intern at the New Haven Hospital, after which he began general practice in the city of his birth. In 1876 he was appointed assistant physician of the Connecticut Hospital for the Insane and continued as such until the death of Dr. Shew in 1886, when he was called by the Board of Trustees to the Superintendency of the Institution which he served so long and faithfully.

In 1882 he married Miss Emma Parmeton, daughter of the late John Parmeton of Derry, N. H., who, with one daughter, still survives him, and was at his bedside when he passed away.

For five or six years past he has every summer been prostrated for a period varying from two to five weeks by symptoms similar to those which characterized the beginning of his final illness, but from which, after a period of rest and treatment, he had heretofore recovered. In the illness which finally terminated in his death, his vital forces were apparently too much exhausted for him to rally. A little over two weeks prior to his death he was persuaded to go to New York for much needed rest and treatment, but the change came too late, and, despite the most skilful treatment and advice which the city afforded, he sank rapidly and died, December fourth. His burial took place at the Grove Street Cemetery in New Haven, December seventh, in the presence of his family, several members of the Board of Trustees of the Hospital, prominent state officials, friends, and representatives of the institution with whom he had been associated.

"We live in deeds, not years; in thoughts, not breaths;
In feelings, not in figures on a dial;
We should count time by heart-throbs. He most lives
Who thinks most, feels the noblest, acts the best."

CHARLES ANSON FOX, M.D., OF HARTFORD.

By Horace S. Fuller, M.D.,

HARTFORD.

Dr. Charles Anson Fox, son of Anson and Jenette McNeal Fox, was born in Windsor Locks, October fourth, 1865. He attended the graded school of that town, where he fitted for the Hartford High School, and entered in 1871. He did not complete the course, but left the school in 1873, to become a druggist, and continued in that business for four years. However, he did not seem satisfied with this occupation, nor did the close confinement which this business required agree with his health. He then desired to study medicine. The difficulties and discouragements of a doctor's life were fully brought before him, but he could not be dissuaded from his purpose of studying medicine, and was admitted as a student to the office of Dr. H. S. Fuller of Hartford.

Dr. Fox was enthusiastic in his studies, made good progress in them, and was graduated at the College of Physicians and Surgeons of New York City, May thirteenth, 1881. The following September he became an intern in the Hartford Hospital, where he was faithful and conscientious in his work, and gave satisfaction to those under whom he served.

After leaving the Hospital he was married to Miss Mary A. Pierce, May seventeenth, 1882, and located in Hartford, where he continued in practice for three years and a half, gaining for himself a fair share of patronage. His health, however, was not firm, and thinking that it might improve by going into the country, he removed to East Haddam. Not receiving the benefit hoped for, he returned to Hartford and again resumed practice here,

but soon after, August eighth, 1888, he was stricken with nervous prostration and mental disturbances from which he never entirely recovered. He afterwards attempted to do some business, but did not feel equal to the responsibilities required for professional work.

In the spring of 1894 he removed to East Hartford, taking a place with a garden attached, which he thought would afford him exercise, diversion and restoration to health. He improved for about six months and then relapsed into his former condition.

It was his custom when not feeling well to ride or walk after dinner. On Sunday, May seventeenth, 1896, he went out, and nothing definite was heard of him afterwards.

His remains were found October thirtieth, 1897, in the woods at Manchester Green, where it is supposed he wandered and died during a period of mental aberration.

He left a wife and two daughters, Katherine P., and Mary Y., aged respectively fourteen and three.

Dr. Fox was a member and regular attendant of the Episcopal church. He was faithful and conscientious in all his duties, loved his profession, but lacked the physical stamina to meet the cares and responsibilities of a physician. He was an upright man, a good neighbor, and a kind friend.

WILLIAM FREEMAN FRENCH, A.M., M.D., OF NOROTON.

By Samuel Pierson, M.D.,

STAMFORD.

Dr. William F. French of Noroton, died at his home, on January twenty-seventh, 1898, of pneumonia, after an illness lasting only six days. For a week he had been suffering from an attack of grippe, but attended to his professional work as usual, and it was not until his disease was fully developed and discovered by his friend, Dr. Brownson, that he would stop his usual rounds.

Dr. French, the son of Rev. Louis French, rector of St. Luke's Episcopal church, Noroton, and Martha A. French, was born at Sharon, August eighteenth, 1856. He graduated at Trinity College, Hartford, as Bachelor of Arts in 1879, and took his degree as Master of Arts in 1882. He received his medical degree at the University College, New York, in 1883, and then spent two years in St. Catherine Hospital, Brooklyn.

He was a member of the Fairfield County Medical Association, the Stamford Medical Society, and was Consulting Physician to the Soldier's Home, Health Officer, and Medical Examiner of the town of Darien. He was also a member of the Society of the Sons of the Revolution, the Society of the War of 1812 and of the Colonial Wars.

Dr. French inherited his love and enthusiasm for his profession from his grandfather, who practiced for some fifty years in Milford, and who graduated from what is now the College of Physicians and Surgeons in New York, in 1810. The Doctor's professional life was passed entirely in Noroton, where his home had been since childhood. Dr. French had the interests of Noroton very much

at heart, and the church of which his father had been rector for so many years, was equally dear to him. He was one of the organizers of the Wee Burn Golf Club at Noroton, and in this sport he found his chief relaxation from the strain of his professional work. So enthusiastic was he in this respect, that he said that he never needed a vacation, but took his rest on the golf links, playing all winter except in the most inclement weather. Himself an expert, he always had time to stop and explain some doubtful point to a beginner.

His life was that of the country doctor, and no printed page can express the devotion to his profession, nor tell of the miles of travel over country roads in all kinds of weather. These things are written in the hearts of many humble and lowly people about Noroton, as well as in the hearts of his friends and of his brothers in his profession.

While Dr. French was an extremely practical man in his profession, it would be hard to find a man better read in medical literature, keeping up with all the latest discoveries in Medicine and Surgery, and quick to apply them in his own practice.

His funeral services were held in the midst of a furious snow-storm, but the church could not hold the throng of people, rich and poor, old and young, whom the elements could not prevent paying this last tribute of respect to one whom they had learned to love and honor because of his faithful work among them.

JAMES FRANCIS DONOHUE, M.D., OF NEW BRITAIN.

By L. M. Cremin, M.D.,

HARTFORD.

Dr. James F. Donohue died in New Britain, January twenty-second, 1898, from facial erysipelas and meningitis.

He was born in Waterbury, July twelfth, 1865. His early education was acquired in the public schools of that city and Holy Cross College, Worcester, Mass.

In 1889 he commenced the study of medicine at Bellevue Medical College, New York, where he remained one year, afterwards continuing his studies at Dartmouth Medical College, Vt., from which institution he was graduated in 1892. After taking a six months post-graduate course in New York, he located in New Britain. During his five years of active practice in this city he made hosts of friends, professionally and socially, owing to his affable and good-natured manner, and his ready willingness to respond at all times to the oftentimes laborious and exacting duties of his profession. He was a member of the New Britain Medical Society and also the Hartford County Medical Association, and well liked by all who knew him.

He was married to Miss Minnie L. Degree of Burlington, Vt., shortly after his graduation and their domestic life was especially pleasant and congenial.

ADDENDUM.

The following motion having been overlooked and failed of insertion in its proper place in the Proceedings is inserted here for future action.

Dr. F. W. Wright moved to amend the By-Laws by providing that the Nominating Committee shall meet at least two weeks before the meeting of the State Society, and make the nominations which shall be submitted to the members of the Society at least one week before the annual meeting. This was laid over for action at the next meeting.

N. E. Wordin, Secretary.

CHARTER AND BY-LAWS.

CODE OF ETHICS.

CHARTER AND BY-LAWS

OF THE

CONNECTICUT MEDICAL SOCIETY

CHARTER.

General Assembly, May Session, 1870, Amending the Charter of the Connecticut Medical Society.

Resolved by this Assembly:

Section 1. That the Physicians and Surgeons now members of the Connecticut Medical Society, and all Physicians and Surgeons who shall be associated with them in pursuance of the provisions of this act, shall be and remain a body politic and corporate, by the name of The Connecticut Medical Society; and by that name they and their successors shall and may have perpetual succession; shall be capable of suing and being sued, pleading and being impleaded in all suits of whatever name and nature; may have a common seal, and may alter the same at pleasure; and may also purchase, receive, hold, and convey any estate, real or personal, to an amount not exceeding one hundred thousand dollars.

Sec. 2. That the superintendence and management of the Society shall be vested in a body to be known and called by the name of "The President and Fellows of the Connecticut Medical Society;" which body shall have power to prescribe the duties of its officers and members, and fix their compensation; to establish the conditions of admission, dismission, and expulsion; to lay a tax from time to time upon the members, not exceeding five dollars

in each year; to collect the same, and to hold and dispose of all moneys and other property belonging to the Society in such manner as they may think proper to promote the objects and interests of the Society; and in general, to make such by-laws and regulations for the due government of the Society, not repugnant to the laws of the United States or of this State, as may be deemed necessary.

SEC. 3. That the President and Fellows of the Connecticut Medical Society shall be composed of the officers of the Society for the time being, and of Fellows (not less than three nor more than five) chosen by and from each of the County Associations.

SEC. 4. That hereafter no one shall be admitted to membership in any County Association having connection with this Society, unless he shall have received the degree of Doctor of Medicine, or have been admitted ad eundum, from such medical authorities as this Society shall deem proper to recognize.

SEC. 5. It shall be the duty of the several clerks of the County Associations, in their respective counties, to collect and pay over to the Treasurer of the Society all such taxes as shall from time to time be laid by the President and Fellows, upon the members of the Society as aforesaid; and for that purpose said clerks may procure a warrant, under the hand of a justice of the peace, against such member or members of the Society as shall neglect or refuse to pay the taxes so imposed upon them as aforesaid; which warrant any justice of the peace is hereby empowered to issue, and said warrant shall be directed to the sheriff or his deputies of the county in which such delinquent member or members reside; and said sheriff, or either of his deputies, on receiving such warrant, may therewith proceed to enforce the collection of such tax or taxes, in the same manner, and with the addition of the

same fees, as are by law prescribed and allowed to the collectors of town taxes. And if any of the clerks of the County Associations shall neglect or refuse to collect the taxes entrusted to him to collect, by the time the same are made payable, or having collected the same shall neglect or refuse to pay the same over to the Treasurer of the Society, such Treasurer may cause a suit or suits to be instituted against such delinquent, in the name of the Society, before any court proper to try the same, and the same to pursue to final judgment; and the clerks shall be allowed and receive a compensation of five per centum on all moneys collected by them respectively, and paid to the Treasurer of the Medical Society.

SEC. 6. That these amendments shall take effect on the day of its passage; and so much of the Act entitled an Act to incorporate the Connecticut Medical Society, approved June 5, 1834, and all such acts in addition thereto and amendments thereof as are inconsistent herewith, be, and the same are hereby repealed.

Approved July 8, 1870.

BY-LAWS.

Chapter I.

Section 1. This Society shall be known by the name of The Connecticut Medical Society; and shall be composed of the several County Associations, formed of Active Members residing in the State; and of Honorary Members, not residing in this State, elected by the President and Fellows.

Sec. 2. The President and Fellows of the Connecticut Medical Society shall hold an Annual meeting on the fourth Wednesday in May of each year, alternately at Hartford and New Haven, except when by a majority vote they may agree to hold the annual meeting in some other place.

Sec. 3. The Connecticut Medical Society shall hold an Annual Convention for Literary and Scientific exercises following the general meeting of the President and Fellows.

Sec. 4. The members of the Connecticut Medical Society, constituting County Associations, shall meet annually in their respective counties at least four weeks before the annual meeting of the President and Fellows, and at such other times as said County Associations may determine.

Chapter II.

Section 1. The officers of the Society shall consist of a President, Vice President, Treasurer, Secretary and Assistant Secretary, Committee on Matters of Professional Interest in the State, and the Presidents of the County Associations, who shall be Vice Presidents ex officio.

SEC. 2. It shall be the duty of the President to preside at all the meetings of the President and Fellows and at the Conventions of the Society, to preserve order, state and put questions, call for reports of committees, see that the by-laws are properly observed, and perform such other duties as may be appropriate to his office. At the Annual Meeting of the President and Fellows, the President shall present such matter for their consideration as he may think requires attention. At the Annual Convention he shall deliver an address on some suitable subject.

SEC. 3. In the absence or disability of the President, the Vice President or one of the ex officio Vice Presidents shall preside. In case of a vacancy in the office of President, caused by death, resignation or removal, all the duties of his office shall devolve on the Vice President.

SEC. 4. It shall be the duty of the Treasurer to take charge and keep a correct account of all moneys belonging to the Society, together with the receipts and disbursements, and render annually to the President and Fellows a statement of all moneys received and paid by him. He shall preserve for the benefit of the Society, all donations and other movable property committed to his charge, and keep an exact list of the same, together with the names of the respective donors. He shall not pay any money out of the Treasury, nor make any investment of the funds of the Society, or change the same, but by order of the President and Secretary. And he shall deliver to his successor all books and papers, with the balance of cash or other property in his hands.

SEC 5. The Secretary shall have charge of the records of the Society, attend all the meetings of the President and Fellows, and the Annual Convention of the Society, record all the transactions of the same, give true copies of them when requested, conduct their correspondence,

and have the custody of the Seal of the Society. The Secretary shall be ex officio Chairman of the Committee of Publication. One of the elective members of the Committee of Publication, to be selected by the Secretary, shall be the Assistant Secretary. The Secretary shall send due notice of the annual meeting to each member, and publish notice of the same in three of the daily papers printed in this State. When definitely informed that the Delegates to the American Medical Association or any State Society cannot attend, he may appoint substitutes, or give certificates to those otherwise selected. The Secretary shall send each year an extra copy of the published "Proceedings" of the Society to each of the Clerks, for the use of the County Associations; also to other State Societies and to Honorary Members.

SEC. 6. The Committee on Matters of Professional Interest in the State, shall consist of three, and be ex officio Fellows of the Connecticut Medical Society, to be elected annually by ballot, the first named to be Chairman, whose duty it shall be, at every Annual Convention, to report the progress of our science, particularly in Connecticut—remarkable and instructive cases of disease that have come to their knowledge—interesting facts or discoveries relating to medicine—all circumstances connected with epidemics (if any have prevailed) and the treatment adopted, whether successful or otherwise—in short, whatever influences may concern the health of the citizens of Connecticut. And the more effectually to perfect this report, it shall be the duty of each County and other Association represented in this Society annually to appoint one of its members as a Reporter, who shall furnish to this Committee, on or before the first day of May, all the information he can get relative to these subjects, within the limits of the district in which the local Association exists.

SEC. 7. Any officer of the Society may, for sufficient

reasons, resign his office, or may be removed therefrom by order of the President and Fellows, for neglect, inattention, or malconduct; in either of which cases, or on the death of any officer, the President and Fellows shall supply the office vacated as soon as may be convenient.

Sec 8. The necessary expenses of the Treasurer, Secretary and Chairman of the Committee on Matters of Professional Interest in the State, shall be paid; and in addition thereto the Treasurer shall receive twenty-five dollars and the Secretary one hundred and fifty dollars per annum respectively for their services.

Sec. 9. The Secretary of the Society shall hold his office for four years and until another shall be elected. All other officers of the Society shall be elected annually.

Note.—By special vote this By-Law does not affect the tenure of office of the present Secretary.

Chapter III.

Section 1. The Annual Meeting of the President and Fellows of the Connecticut Medical Society shall be held on the fourth Wednesday of May in each year.

Sec. 2. The President, Vice Presidents, Treasurer, Secretary, Committee on Matters of Professional Interest in the State, and the Fellows elected in the several counties shall be known and called by the name of the President and Fellows of the Connecticut Medical Society, a majority of whom legally assembled together shall be a quorum for the transaction of business, and shall have the power to make by-laws for the regulation and government of the Society and for the promotion of the objects of the same, not repugnant to the laws of this State or of the United States; to expel any member of the Society for misconduct; to make rules for the admission of members of the Society; and for their dismission from the same; to lay a tax on each member of the Society not exceeding

five dollars in each year; to dispose of the moneys thus raised and all other property of the Society in such manner as they may think proper to promote the objects and interests of the Society.

The President and Fellows at any annual meeting, and after one year's nomination of every candidate, and not otherwise, may, by a major vote of those present, elect eminent physicians not resident in this State to be honorary members of this Society. But those so elected shall not exceed three in any one year.

Sec. 3. The President of the Society, or in case of his death or inability, the Vice President, shall have power to call a meeting of the President and Fellows at such time and place as he may think proper, when requested by any five Fellows of whom two at least are from different counties, and he shall cause notice thereof to be given by the Secretary to each member of the President and Fellows of the time and place of meeting, which notice shall be mailed at least one week previous to said meeting.

Sec. 4. Officers and Standing Committees shall be elected by ballot. The Committee of Publication shall consist of the Secretary, ex officio, and two other members elected by ballot, one of whom shall be Assistant Secretary. Each Annual County Meeting shall designate one of the elected Fellows to serve on the Nominating Committee of the President and Fellows. All other committees shall be appointed by the presiding officer of the Society. The President may appoint the usual committees two weeks before the Annual Convention.

Sec. 5. The President shall, at an early hour of the session, appoint a Committee of three Fellows, of which the Secretary shall be one, to be called the Business Committee, to whom all reports of cases, dissertations or other papers designed to be read at the Meetings of the

Society shall be presented. This Committee shall examine them and recommend the manner and order in which they shall be read to the Society.

SEC. 6. It shall be the duty of the Fellows of the several counties to present to the Society short obituary sketches of deceased members, which shall be revised, amended or condensed by the Committee of Publication as they deem expedient. In case, however, of any considerable changes in obitnary sketches either in revising, amending or condensing, said sketches shall be submitted to the writer before publication in the Proceedings.

CHAPTER IV

SECTION 1. The members of the Connecticut Medical Society shall meet annually in their respective counties, and at such other times and at such places as have been or may hereafter be agreed upon by them; provided, the annual meeting shall be at least four weeks before the fourth Wednesday in May. Each County Association of members of the Connecticut Medical Society shall be known and called by the name of the county in which it is held. Each County Association shall choose a President, Clerk and such other officers as may be found necessary. At their annual meeting they shall elect by ballot, of their own number, in each county, five, except in the county of Tolland which shall elect three, Fellows to have part in the superintendence and management of the Society. Each County Association shall elect as many Alternates as they elect Fellows, who shall act in the absence of their primaries. Each County Association shall designate one of their Fellows as a member of the Nominating Committee and another as his Alternate.

SEC. 2. The several County Associations shall have power to adjourn, to call special meetings, as they shall deem expedient, and adopt such by-laws as they find

desirable, not contrary to the laws of the State or the by-laws of the Connecticut Medical Society.

Sec. 3. Any practising physician of good moral character having the qualifications prescribed by the Charter and By-Laws of the Connecticut Medical Society and making application for that purpose may be admitted to membership in said Society by a major vote by ballot of the members present at any regular meeting in the Association in the County where said person resides, provided he has been residing and practicing in the State one year and in said County six months.

Sec. 4. All persons so elected shall, within one year after said election, subscribe to the by-laws of the Society or otherwise declare in writing their assent to the same, or such election shall be void.

Sec. 5. Any County Association may, by a major vote, dismiss from the Society any member of their county who shall remove from the State or who shall leave the profession for other pursuits.

Sec. 6. Any County Association may, if it is deemed expedient, recommend to the President and Fellows, for dismissal from the Society, any member residing in that county who shall apply for such dismissal by a written request to that effect, delivered to the Clerk of said County Meeting at least ten days before the time of holding any legal county meeting; and also any member who shall refuse or neglect to pay taxes; and upon the approval of such recommendation by the President and Fellows in annual meeting, the connection between such member and the Society shall be dissolved; provided, that no member shall be honorably dismissed from the Society until all his taxes shall have been paid.

The Clerk of each County Association shall omit from the roll of members which he reports to the Treasurer the names of all members who have for two years refused or

neglected to pay the taxes assessed by the President and Fellows, reporting the names of such delinquents to the County Meeting. Said County Association shall suspend such delinquent members till said taxes are paid, or unless they find good reasons for delay, may expel such delinquent members, reporting their action to the President and Fellows for approval.

The annual tax shall be collected from all members except the Clerks of County Associations; provided, that any County Association may recommend to the President and Fellows the abatement of the taxes, on account of disability or pecuniary embarrassment, of a member who is over sixty years of age.

Sec. 7. All violations of the by-laws of the Connecticut Medical Society, or of the Medical Police adopted by the Society, or of the rules and regulations passed by the County Associations in conformity with the by-laws of the State Society, may be prosecuted and tried in the respective County Associations, under the following regulations, viz.: They shall appoint from among their members three persons to be known as the Board of Censors, the duties of which board shall be to take cognizance and advisory consideration of all instances of violation of the by-laws of the Society, that may come to their knowledge or be properly presented to them, and shall make report to the County Association of their action whenever it shall seem to them expedient, or they shall be thereto ordered by the Association. The member accusing another of a violation of any of the before mentioned regulations, shall make a statement, in writing, and lay the same before a Fellow of the Society; and such Fellow shall issue notification to the accused to appear before the next County Association, stating the time when and the place where it is to be held, to defend, if he sees fit, against such accusation. A copy of such accusation and notification shall be left

with the accused, or at his last usual place of abode, at least twelve days previous to the time of holding the next County Association. And the accuser shall cause the said accusation and notification to be served and returned to the Clerk of the County Association on or before the day of their sitting; at which day the case with the accompanying papers shall be referred to the Board of Censors hereinbefore mentioned, who shall hear all evidence and report to the Association the conclusions at which they have arrived, and their reasons therefor, and the offender, upon conviction, may be punished by admonition, by suspension from the privileges of the Society for a period not exceeding two years, or by expulsion from the Society; provided, that no sentence of expulsion shall be valid until confirmed by the President and Fellows in annual meeting.

SEC. 8. When a new Clerk is chosen in any of the County Associations, his predecessor shall deliver to him all the records and papers pertaining to the office, retaining copies of the same, if he think proper.

SEC. 9. It shall be the duty of the several Clerks of the County Associations, in their respective counties, to collect and pay over to the Treasurer of the State Society all such taxes as shall from time to time be laid by the President and Fellows upon the members of the Connecticut Medical Society. A certified copy of the levy of the tax signed by the President and Secretary, shall be sent annually to the Clerk of each County Association. And the Clerks shall be allowed a compensation of five per cent. on all moneys collected by them respectively and paid to the Treasurer of the State Society; provided, that such additional sum as the County Association may direct, not exceeding five per cent. of the moneys collected, may be retained by the Clerk to pay the expenses of the meetings of said Association.

SEC. 10. The Secretary shall send to each Clerk,

before the annual meeting of the County Medical Association, blanks for the returns required for the Secretary and Treasurer of the State Society. The Clerks shall return to the Secretary a true list of the officers elected at the annual meeting, all the members of the County Associations, with the post-office address of each—in case of new members the date and place of graduation should be invariably given; the names of members who have died since the last meeting, with the name of the person appointed to write an obitnary sketch; also a list of delinquent tax-payers with the amount due from each, and all other information therein required that may be necessary for the Secretary to make up the program for the annual convention. This return shall be certified by the Clerk, who shall transmit to the Secretary obituary sketches of those who have died, and all papers destined for the Transactions of the Society, or to be acted upon in convention. The blank to be returned to the Treasurer shall contain a list of the taxable members and those exempt, with the reason therefor; also such other facts as may be therein required, the whole return to be certified by the Clerk. Those who fail in this duty shall be subject to a fine of five dollars, to be collected by the Treasurer.

Chapter V.

Section 1. Each member of the Society shall have free access to the records of the Society, and of the County Association to which he belongs, and may take attested copies thereof if he requests them.

Sec 2. All the members of the Connecticut Medical Society have the privilege of attending all the meetings of the President and Fellows, and performing all the duties of Fellows except voting. Honorary members shall have the privilege of a seat at the Annual Meeting,

and of taking part in the discussions; but they shall not vote on any question or be eligible to any office.

Sec. 3. Any member of the Society who shall make, vend, or publicly recommend, or who is directly or indirectly interested in the manufacture, use, or sale of any nostrum or patent medicine, shall not be eligible to any office, and is liable to be suspended from the privileges of the Society, or to expulsion.

Sec. 4. No member of the Society shall hold professional consultation or intercourse with any other than licensed physicians and surgeons in regular standing.

Sec. 5. It shall be the duty of every member of this Society to accuse any other member of the Society for such misdemeanors as he deems contrary either to the By-Laws, Medical Police, or Rules and Regulations adopted by the Society; and the accuser shall proceed in the manner directed in Chapter iv, Sec. 7, of By-Laws.

The privileges and obligations of membership revert to a regular physician on returning to the State.

Chapter VI.

Section 1. All elections of officers of the Society shall be at the Annual Meeting of the President and Fellows, and by ballot; and a majority of votes shall be requisite to elect.

Sec. 2. Before the President and Fellows proceed to ballot, the Committee on Nominations shall present a list of candidates for the several officers to be elected; and, an opportunity having been given to the members to make other nominations, the Society shall then be called to ballot; if no election is obtained on the first canvass, the two highest shall be candidates for the next balloting. When a choice is made, the persons chosen shall hold their office during one year, and until others shall be elected.

SEC. 3. The Nominating Committee shall report names for the delegates to the American Medical Association, and to corresponding Societies, and shall also nominate a Committee of Arrangements, whose duty it shall be to provide convenient accommodations for the next annual convention, and an Anniversary Chairman, who shall preside at the dinner of the next year. The Anniversary Chairman shall be one of the Committee of Arrangements.

CHAPTER VII.

SECTION 1. The Society adopts the Code of Ethics of the American Medical Association as a part of its Constitution and By-Laws.

SEC. 2. No article of the By-Laws, as now adopted, shall be altered, or amended, except the subject proposed shall have been submitted in writing to the consideration of the President and Fellows at a previous annual meeting; and a vote of two-thirds of the members present in that body shall be necessary to ratify and confirm any amendment. But any By-Law may be suspended by a two-thirds vote.

SEC. 3. On the day of the annual convention, a dinner shall be provided, at the expense of those members partaking of it. Delegates from other Societies shall be provided for under the direction of the Committee of Arrangements. An invitation to this dinner may be given to such eminent persons as the President of the Society, or Anniversary Chairman, shall think proper to notice in this manner.

CHAPTER VIII.

SECTION 1. No member of this Society shall be recommended to the President and Fellows of Yale College for the honorary degree of Doctor of Medicine until such member shall have been in the practice of medicine for a

period of twenty-five years at least, and no more than one shall be recommended from this State in any one year, and such degree shall be conferred solely on the ground of distinguished merit and honor of the individual. Adopted in 1856.

SEC. 2. The names of candidates for the honorary degree of Doctor of Medicine and honorary membership shall be published in the Proceedings of the Society, and not be acted upon for one year subsequent to the time such nominations are made. Passed May, 1860.

DUTIES OF THE PUBLICATION COMMITTEE.

It shall be the duty of the Publication Committee to print, as soon as practicable after each annual meeting, a report of the Proceedings.

This shall contain the Secretary's report of the business transacted, the papers presented, a list of members, and such other material as may properly be placed in such a publication. All remarks made in the discussion of any scientific subject may be committed to writing by the person making them, either before or immediately after they are made and given to the Committee of Publication. The Secretary at the expense of the Society shall provide suitable tablets for this purpose. In the compilation of the Proceedings the papers shall be arranged in the following order: The Secretary's report, the President's Address, the Dissertations, papers by members presented at the request of the Society, papers recommended for publication by the County Meetings, voluntary papers, obituary notices of deceased members.

Should the papers presented exceed suitable limits for publication the Committee is authorized and directed to omit such as they consider of the least value. In cases of doubt the Committee are authorized to use the order in

which the papers are named above as the order of preference. A printed copy of the Proceedings shall be sent to each member of the Society, except to those who are in arrears two or more years for dues.

The Committee shall forward to the author of each published article twenty-five reprints of his paper, when such are requested.

Reprints of obituary sketches shall be sent, bound in proper form, in such numbers as may be desired, to the families of deceased members.

The Yale Medical School shall be allowed, free of expense, the use of two pages for advertising purposes.

Other proper medical or surgical advertisements may be inserted, a suitable charge being made for their admission.

ORDER OF EXERCISES.

Report of the Committee on Credentials.

Address to the Fellows by the President.

Report of the Committee on Unfinished Business.

Report of the Committee on Business.

Reports of Special Committees.

Introduction of New Business.

Report of the Treasurer.

Report of the Committee on County Resolves.

Report of the Nominating Committee.

Election of Officers and Delegates.

Report of the Committee to Nominate Essayists on the Progress of Medicine and Surgery.

Report of Committee on Honorary Members and Degrees.

Reports of Standing Committees.

Report of Auditing Committee.

Miscellaneous Business.

PRECEDENCE OF MOTIONS IN ORDER.

WHEN A QUESTION IS UNDER DEBATE.

(Cushing.)

1. To adjourn.
2. To lay on the table.
3. The previous question.
4. To postpone to a day certain.
5. To commit.
6. To amend.
7. To postpone indefinitely.
8. The main question.

REPORTS OF COMMITTEES.

HOW TO DISPOSE OF THEM.

When a committee is ready to report, the first question is whether the assembly will receive the report.

If the assembly, either by formal vote, or by tacit consent, permits a report to be read, the report, by such permission, is received, and goes to the Clerk for his files —that is to say, lies on the table.

The committee, by reading the report is dissolved and discharged, and cannot act again without new power from the assembly.

The report having been received, as above indicated, lies on the table, and the matter may end at this point without further action being taken or a word said.

But if the assembly wishes to discuss, or take action on any part or the whole of a report it can do so as soon as the report is read, or at any subsequent time, upon motion properly seconded. Whenever a report, or any part of it is thus taken up, it may be treated and disposed of precisely as any other proposition—it may be allowed to stand as it came from the committee, or it may be amended in its statement, reasons, opinion,

or in its resolutions or other propositions, if it contain such—any portion being taken separately, several portions together, or the whole at once.

In whatever way the report be treated, the final question on any portion, or the whole, as the case may be, is on acceptance, and "when accepted it is adopted" (Cushing, p. 151, sec. 295) by the assembly, and becomes the statement, reasoning, opinion, resolution, or other act, as the case may be, of the assembly, the same as it would have been had it originated in the assembly itself without the intervention of a committee.

(Though the question may be properly put on acceptance of a statement of facts, reasoning, or opinion; on agreeing to resolutions or other similar propositions; on adopting the order, or on passing and coming to the vote recommended, etc.; all these phrases are only equivalent to acceptance, which comprehends them all.)

The points then always to be remembered are, that a report is received by being allowed to be read; and that the whole, or any part of it, when accepted is adopted and should be so entered in the Proceedings.

If the above exposition, strictly in accordance with Cushing and correct parliamentary usage, were constantly kept in mind by presiding officers, the deliberations of our Societies would be greatly facilitated and much confusion avoided.

CODE OF MEDICAL ETHICS.

OF THE DUTIES OF PHYSICIANS TO THEIR PATIENTS, AND OF THE OBLIGATIONS OF PATIENTS TO THEIR PHYSICIANS.

ARTICLE I.

DUTIES OF PHYSICIANS TO THEIR PATIENTS.

SECTION 1. A physician should not only be ever ready to obey the calls of the sick, but his mind ought also to be imbued with the greatness of his mission, and the responsibility he habitually incurs in its discharge. Those obligations are the more deep and enduring, because there is no tribunal other than his own conscience to adjudge penalties for carelessness or neglect. Physicians should, therefore, minister to the sick with due impressions of the importance of their office; reflecting that the ease, the health, and the lives of those committed to their charge, depend on their skill, attention, and fidelity. They should study, also, in their deportment, so to unite tenderness with firmness, and condescension with authority, as to inspire the minds of their patients with gratitude, respect and confidence.

SEC. 2. Every case committed to the charge of a physician should be treated with attention, steadiness and humanity. Reasonable indulgence should be granted to the mental imbecility and caprices of the sick. Secrecy and delicacy, when required by peculiar circumstances, should be strictly observed; and the familiar and confidential intercourse to which physicians are admitted in their professional visits, should be used with discretion, and with the most scrupulous regard to fidelity and honor. The obligation of secrecy extends beyond the period of professional services; none of the privacies of personal and domestic life, no infirmity of disposition or

flaw of character observed during professional attendance, should ever be divulged by the physician except when he is imperatively required to do so. The force and necessity of this obligation are indeed so great, that professional men have, under certain circumstances, been protected in their observance of secrecy by courts of justice.

Sec. 3. Frequent visits to the sick are in general requisite, since they enable the physician to arrive at a more perfect knowledge of the disease—to meet promptly every change which may occur, and also tend to preserve the confidence of the patient. But unnecessary visits are to be avoided, as they give useless anxiety to the patient, tend to diminish the authority of the physician, and render him liable to be suspected of interested motives.

Sec. 4. A physician should not be forward to make gloomy prognostications, because they savor of empiricism, by magnifying the importance of his services in the treatment or cure of the disease. But he should not fail, on proper occasions, to give to the friends of the patient timely notice of danger when it really occurs; and even to the patient himself, if absolutely necessary. This office, however, is so peculiarly alarming when executed by him, that it ought to be declined whenever it can be assigned to any other person of sufficient judgment and delicacy. For, the physician should be the minister of hope and comfort to the sick; that, by such cordials to the drooping spirit, he may smooth the bed of death, revive expiring life, and counteract the depressing influence of those maladies which often disturb the tranquility of the most resigned in their last moments.. The life of a sick person can be shortened not only by the acts, but also by the words or the manner of a physician. It is, therefore, a sacred duty to guard himself carefully in

this respect, and to avoid all things which have a tendency to discourage the patient and to depress his spirits.

Sec 5. A physician ought not to abandon a patient because the case is deemed incurable; for his attendance may continue to be highly useful to the patient, and comforting to the relatives around him, even in the last period of a fatal malady, by alleviating pain and other symptoms, and by soothing mental anguish. To decline attendance, under such circumstances, would be sacrificing to fanciful delicacy and mistaken liberality, that moral duty, which is independent of, and far superior to, all pecuniary consideration.

Sec. 6. Consultations should be promoted in difficult or protracted cases, as they give rise to confidence, energy, and more enlarged views in practice.

Sec. 7. The opportunity which a physician not unfrequently enjoys of promoting and strengthening the good resolutions of his patients suffering under the consequences of vicious conduct, ought never to be neglected. His counsels, or even remonstrances, will give satisfaction, not offence, if they be proffered with politeness, and evince a genuine love of virtue, accompanied by a sincere interest in the welfare of the person to whom they are addressed.

ARTICLE II.

OBLIGATIONS OF PATIENTS TO THEIR PHYSICIANS.

Section 1. The members of the medical profession, upon whom is enjoined the performance of so many important and arduous duties towards the community, and who are required to make so many sacrifices of comfort, ease, and health, for the welfare of those who avail themselves of their services, certainly have a right to expect and require, that their patients should entertain a just sense of the duties which they owe to their medical attendants.

Sec. 2. The first duty of a patient is to select as his medical adviser one who has received a regular professional education. In no trade or occupation do mankind rely on the skill of an untaught artist; and in medicine, confessedly the most difficult and intricate of the sciences, the world ought not to suppose that knowledge is intuitive.

Sec. 3. Patients should prefer a physician whose habits of life are regular, and who is not devoted to company, pleasure, or to any pursuit incompatible with his professional obligations. A patient should, also, confide the care of himself and family, as much as possible, to one physician; for a medical man who has become acquainted with the peculiarities of constitution, habits, and predispositions, of those he attends, is more likely to be successful in his treatment than one who does not possess that knowledge.

A patient who has thus selected his physician, should always apply for advice in what may appear to him trivial cases, for the most fatal results often supervene on the slightest accidents. It is of still more importance that he should apply for assistance in the forming stage of violent diseases; it is to a neglect of this precept that medicine owes much of the uncertainty and imperfection with which it has been reproached.

Sec. 4. Patients should faithfully and unreservedly communicate to their physician the supposed cause of their disease. This is the more important, as many diseases of a mental origin simulate those depending on external causes, and yet are only to be cured by ministering to the mind diseased. A patient should never be afraid of thus making his physician his friend and adviser; he should always bear in mind that a medical man is under the strongest obligations of secrecy. Even the female sex should never allow feelings of shame or delicacy to prevent their disclosing the seat, symptoms, and causes of

complaints peculiar to them. However commendable a modest reserve may be in the common occurrences of life, its strict observance in medicine is often attended with the most serious consequences, and a patient may sink under a painful and loathsome disease, which might have been readily prevented had timely intimation been given to the physician.

SEC. 5. A patient should never weary his physician with a tedious detail of events or matters not appertaining to his disease. Even as relates to his actual symptoms, he will convey much more real information by giving clear answers to interrogatories, than by the most minute account of his own framing. Neither should he obtrude upon his physician the details of his business nor the history of his family concerns.

SEC. 6. The obedience of a patient to the prescriptions of his physician should be prompt and implicit. He should never permit his own crude opinions as to their fitness, to influence his attention to them. A failure in one particular may render an otherwise judicious treatment dangerous, and even fatal. This remark is equally applicable to diet, drink and exercise. As patients become convalescent, they are very apt to suppose that the rules prescribed for them may be disregarded, and the consequence, but too often, is a relapse. Patients should never allow themselves to be persuaded to take any medicine whatever, that may be recommended to them by the self-constituted doctors and doctresses who are so frequently met with, and who pretend to possess infallible remedies for the cure of every disease. However simple some of their prescriptions may appear to be, it often happens that they are productive of much mischief, and in all cases they are injurious, by contravening the plan of treatment adopted by the physician.

SEC. 7. A patient should, if possible, avoid even the friendly visits of a physician who is not attending him—

and when he does receive them, he should never converse on the subject of his disease, as an observation may be made, without any intention of interference, which may destroy his confidence in the course he is pursuing, and induce him to neglect the directions prescribed to him. A patient should never send for a consulting physician without the express consent of his own medical attendant. It is of great importance that physicians should act in concert; for, although their modes of treatment may be attended with equal success when employed singly, yet conjointly they are very likely to be productive of disastrous results.

SEC. 8. When a patient wishes to dismiss his physician, justice and common courtesy require that he should declare his reasons for so doing.

SEC. 9. Patients should always, when practicable, send for the physician in the morning, before his usual hour of going out; for, by being early aware of the visits he has to pay during the day, the physician is able to apportion his time in such a manner as to prevent an interference of engagements. Patients should also avoid calling on their medical adviser unnecessarily during the hours devoted to meals or sleep. They should always be in readiness to receive the visits of their physician, as the detention of a few minutes is often of serious inconvenience to him.

SEC. 10. A patient should, after his recovery, entertain a just and enduring sense of the value of the services rendered him by his physician; for these are of such a character, that no mere pecuniary acknowledgment can repay or cancel them.

OF THE DUTIES OF PHYSICIANS TO EACH OTHER, AND TO THE PROFESSION AT LARGE.

ARTICLE I.

DUTIES FOR THE SUPPORT OF PROFESSIONAL CHARACTER.

SECTION 1. Every individual on entering the profession, as he becomes thereby entitled to all its privileges and immunities, incurs an obligation to exert his best abilities to maintain its dignity and honor, to exalt its standing, and to extend the bounds of its usefulness. He should, therefore, observe strictly, such laws as are instituted for the government of its members; should avoid all contumelious and sarcastic remarks relative to the faculty, as a body; and while, by unwearied diligence, he resorts to every honorable means of enriching the science, he should entertain a due respect for his seniors, who have, by their labors, brought it to the elevated condition in which he finds it.

SEC. 2. There is no profession, from the members of which greater purity of character, and a higher standard of moral excellence are required, than the medical; and to attain such eminence, is a duty every physician owes alike to his profession and to his patients. It is due to the latter, as without it he cannot command their respect and confidence, and to both, because no scientific attainments can compensate for the want of correct moral principles. It is also incumbent upon the faculty to be temperate in all things, for the practice of physic requires the unremitting exercise of a clear and vigorous understanding; and on emergencies, for which no professional man should be unprepared, a steady hand, an acute eye, and an unclouded head may be essential to the well-being, and even to the life of a fellow creature.

SEC. 3. It is derogatory to the dignity of the profession to resort to public advertisements, or private cards,

or handbills, inviting the attention of individuals affected with particular diseases—public offering advice and medicine to the poor gratis, or promising radical cures; or to publish cases and operations in the daily prints, or suffer such publications to be made; to invite laymen to be present at operations, to boast of cures and remedies, to adduce certificates of skill and success, or to perform any other similar acts. These are the ordinary practices of empirics, and are highly reprehensible in a regular physician.

SEC. 4. Equally derogatory to professional character is it, for a physician to hold a patent for any surgical instrument or medicine; or to dispense a secret nostrum, whether it be the composition or exclusive property of himself or of others. For, if such nostrum be of real efficacy, any concealment regarding it is inconsistent with beneficence and professional liberality; and, if mystery alone gives it value and importance, such craft implies either disgraceful ignorance or fraudulent avarice. It is also reprehensible for physicians to give certificates attesting the efficacy of patent or secret medicines, or in any way to promote the use of them.

ARTICLE II.

PROFESSIONAL SERVICES OF PHYSICIANS TO EACH OTHER.

SECTION 1. All practitioners of medicine, their wives and their children while under the paternal care, are entitled to the gratuitous services of any one or more of the faculty residing near them, whose assistance may be desired. A physician afflicted with disease is usually an incompetent judge of his own case; and the natural anxiety and solicitude which he experiences at the sickness of a wife, a child, or any one who, by the ties of consanguinity, is rendered peculiarly dear to him, tend to obscure his judgment, and produce timidity and irresolution in his practice. Under such circumstances, medi-

cal men are peculiarly dependent upon each other, and kind offices and professional aid should always be cheerfully and gratuitously afforded. Visits ought not, however, to be obtruded officiously; as such unasked civility may give rise to embarrassment, or interfere with that choice on which confidence depends. But, if a distant member of the faculty, whose circumstances are affluent, request attendance, and an honorarium be offered, it should not be declined; for no pecuniary obligation ought to be imposed, which the party receiving it would wish not to incur.

ARTICLE III.

OF THE DUTIES OF PHYSICIANS AS RESPECTS VICARIOUS OFFICES.

SECTION 1. The affairs of life, the pursuit of health, and the various accidents and contingencies to which a medical man is peculiarly exposed, sometimes require him temporarily to withdraw from his duties to his patients, and to request some of his professional brethren to officiate for him. Compliance with this request is an act of courtesy, which should always be performed with the utmost consideration for the interest and character of the family physician, and when exercised for a short period, all the pecuniary obligations for such service should be awarded to him. But if a member of the profession neglect his business in quest of pleasure and amusement, he cannot be considered as entitled to the advantages of the frequent and long-continued exercise of this fraternal courtesy without awarding to the physician who officiates the fees arising from the discharge of his professional duties.

In obstetrical and important surgical cases, which give rise to unusual fatigue, anxiety and responsibility, it is just that the fees accruing therefrom should be awarded to the physician who officiates.

ARTICLE IV.

OF THE DUTIES OF PHYSICIANS IN REGARD TO CONSULTATIONS.

SECTION 1. A regular medical education furnishes the only presumptive evidence of professional abilities and acquirements, and ought to be the only acknowledged right of an individual to the exercise and honors of his profession. Nevertheless, as in consultations the good of the patient is the sole object in view, and this is often dependent on personal confidence, no intelligent regular practitioner, who has a license to practice from some medical board of known and acknowledged respectability, recognized by this association, and who is in good moral and professional standing in the place in which he resides, should be fastidiously excluded from fellowship, or his aid refused in consultation, when it is requested by the patient. But no one can be considered as a regular practitioner or a fit associate in consultation, whose practice is based on an exclusive dogma, to the rejection of the accumulated experience of the profession, and of the aids actually furnished by anatomy, physiology, pathology, and organic chemistry.

SEC. 2. In consultations, no rivalship or jealousy should be indulged; candor, probity and all due respect should be exercised toward the physician having charge of the case.

SEC 3. In consultations, the attending physician should be the first to propose the necessary questions to the sick, after which the consulting physician should have the opportunity to make such further inquiries of the patient as may be necessary to satisfy him of the true character of the case. Both physicians should then retire to a private place for deliberation; and the one first in attendance should communicate the directions agreed upon to the patient or his friends, as well as any opinions which it may be thought proper to express. But no state-

ment or discussion of it should take place before the patient or his friends, except in the presence of all the faculty attending, and by their common consent; and no opinions or prognostications should be delivered, which are not the result of previous deliberation and concurrence.

SEC. 4. In consultations, the physician in attendance should deliver his opinion first; and when there are several consulting, they should deliver their opinions in the order in which they have been called in. No decision, however, should restrain the attending physician from making such variations in the mode of treatment as any subsequent unexpected change in the character of the case may demand. But such variation, and the reasons for it, ought to be carefully detailed at the next meeting in consultation. The same privilege belongs also to the consulting physician if he is sent for in an emergency, when the regular attendant is out of the way, and similar explanations must be made by him at the next consultation.

SEC. 5. The utmost punctuality should be observed in the visits of physicians when they are to hold consultation together, and this is generally practicable, for society has been considerate enough to allow the plea of a professional engagement to take precedence of all others, and to be an ample reason for the relinquishment of any present occupation. But, as professional engagements may sometimes interfere, and delay one of the parties, the physician who first arrives should wait for his associate a reasonable period, after which the consultation should be considered as postponed to a new appointment. If it be the attending physician who is present, he will of course see the patient and prescribe; but if it be the consulting one, he should retire, except in case of emergency, or when he has been called from a considerable distance, in which latter case he may exam-

ine the patient, and give his opinion in writing, and under seal, to be delivered to his associate.

SEC. 6. In consultations, theoretical discussions should be avoided, as occasioning perplexity and loss of time. For there may be much diversity of opinion concerning speculative points, with perfect agreement in those modes of practice which are founded, not on hypothesis, but on experience and observation.

SEC. 7. All discussions in consultation should be held as secret and confidential. Neither by words nor manner should any of the parties to a consultation assert or insinuate that any part of the treatment pursued did not receive his assent. The responsibility must be equally divided between the medical attendants—they must equally share the credit of success as well as the blame of failure.

SEC. 8. Should an irreconcilable diversity of opinion occur when several physicians are called upon to consult together, the opinion of the majority should be considered as decisive; but if the numbers be equal on each side, then the decision should rest with the attending physician. It may, moreover, sometimes happen that two physicians cannot agree in their views of the nature of a case, and the treatment to be pursued. This is a circumstance much to be deplored, and should always be avoided, if possible, by mutual concessions, as far as they can be justified by a conscientious regard for the dictates of judgment. But, in the event of its occurrence, a third physician should, if practicable, be called to act as umpire; and if circumstances prevent the adoption of this course, it must be left to the patient to select the physician in whom he is most willing to confide. But as every physician relies upon the rectitude of his judgment, he should, when left in the minority, politely and consistently retire from any further deliberation in the consultation, or participation in the management of the case.

SEC. 9. As circumstances sometimes occur to render a special consultation desirable, when the continued attendance of two physicians might be objectionable to the patient, the member of the faculty whose assistance is required in such cases, should sedulously guard against all future unsolicited attendance. As such consultations require an extraordinary portion both of time and attention, at least a double honorarium may be reasonably expected.

SEC. 10. A physician who is called upon to consult, should observe the most honorable and scrupulous regard for the character and standing of the practitioner in attendance; the practice of the latter, if necessary, should be justified as far as it can be, consistently with a conscientious regard for truth, and no hint or insinuation should be thrown out which could impair the confidence reposed in him, or affect his reputation. The consulting physician should also carefully refrain from any of those extraordinary attentions or assiduities, which are too often practiced by the dishonest for the base purpose of gaining applause, or ingratiating themselves into the favor of families and individuals.

ARTICLE V.

DUTIES OF PHYSICIANS IN CASES OF INTERFERENCE.

SECTION 1. Medicine is a liberal profession, and those admitted into its ranks should found their expectations of practice upon the extent of their qualifications, not on intrigue or artifice.

SEC. 2. A physician in his intercourse with a patient under the care of another practitioner, should observe the strictest caution and reserve. No meddling inquiries should be made—no disingenuous hints given relative to the nature and treatment of his disorder; nor any course of conduct pursued that may directly or indirectly tend to diminish the trust reposed in the physician employed.

SEC. 3. The same circumspection and reserve should be observed when, from motives of business or friendship, a physician is prompted to visit an individual who is under the direction of another practitioner. Indeed, such visits should be avoided, except under peculiar circumstances; and when they are made, no particular inquiries should be instituted relative to the nature of the disease, or the remedies employed, but the topics of conversation should be as foreign to the case as circumstances will admit.

SEC. 4. A physician ought not to take charge of or prescribe for a patient who has recently been under the care of another member of the faculty in the same illness, except in cases of sudden emergency, or in consultation with the physician previously in attendance, or when the latter has relinquished the case, or been regularly notified that his services are no longer desired. Under such circumstances, no unjust and illiberal insinuations should be thrown out in relation to the conduct or practice previously pursued, which should be justified as far as candor and regard for truth and probity will permit; for it often happens that patients become dissatisfied when they do not experience immediate relief, and, as many diseases are naturally protracted, the want of success, in the first stage of treatment, affords no evidence of a lack of professional knowledge and skill.

SEC. 5. When a physician is called to an urgent case, because the family attendant is not at hand, he ought, unless his assistance in consultation be desired, to resign the care of the patient to the latter immediately on his arrival.

SEC. 6. It often happens, in cases of sudden illness, or of recent accidents and injuries, owing to the alarm and anxiety of friends, that a number of physicians are simultaneously sent for. Under these circumstances, courtesy should assign the patient to the first who arrives, who

should select from those present, any additional assistance that he may deem necessary. In all such cases, however, the practitioner who officiates should request the family physician, if there be one, to be called, and, unless his farther attendance be requested, should resign the case to the latter on his arrival.

SEC. 7. When a physician is called to the patient of another practitioner, in consequence of the sickness or absence of the latter, he ought, on the return or recovery of the regular attendant, and with the consent of the patient, to surrender the case.

[The expression, "patient of another practitioner," is understood to mean a patient who may have been under the charge of another practitioner at the time of the attack of sickness, or departure from home of the latter, or who may have been called for his attendance during his absence or sickness, or in any other manner given it to be understood that he regarded the said physician as his regular medical attendant.]

SEC. 8. A physician, when visiting a sick person in the country, may be desired to see a neighboring patient who is under the regular direction of another physician, in consequence of some sudden change or aggravation of symptoms. The conduct to be pursued on such an occasion is to give advice adapted to present circumstances; to interfere no farther than is absolutely necessary with the general plan of treatment; to assume no future direction, unless it be expressly desired; and, in this last case, to request an immediate consultation with the practitioner previously employed.

SEC. 9. A wealthy physician should not give advice gratis to the affluent; because his doing so is an injury to his professional brethren. The office of a physician can never be supported as an exclusively beneficent one, and it is defrauding, in some degree, the common funds

for its support, when fees are dispensed which might justly be claimed.

SEC. 10. When a physician who has been engaged to attend a case of midwifery is absent, and another is sent for, if delivery is accomplished during the attendance of the latter, he is entitled to the fee, but should resign the patient to the practitioner first engaged.

ARTICLE VI.

OF DIFFERENCES BETWEEN PHYSICIANS.

SECTION 1. Diversity of opinion and opposition of interest, may, in the medical as in other professions, sometimes occasion controversy and even contention. Whenever such cases unfortunately occur, and cannot be immediately terminated, they should be referred to the arbitration of a sufficient number of physicians, or a court-medical.

SEC. 2. As peculiar reserve must be maintained by physicians towards the public, in regard to professional matters, and as there exist numerous points in medical ethics and etiquette through which the feelings of medical men may be painfully assailed in their intercourse with each other, and which cannot be understood or apreciated by general society, neither the subject-matter of such differences nor the adjudication of the arbitrators should be made public, as publicity in a case of this nature may be personally injurious to the individuals concerned, and can hardly fail to bring discredit on the faculty.

ARTICLE VII.

OF PECUNIARY ACKNOWLEDGEMENTS.

Some general rules should be adopted by the faculty, in every town or district, relative to pecuniary acknowledgements from their patients; and it should be deemed a point of honor to adhere to these rules with as much uniformity as varying circumstances will admit.

OF THE DUTIES OF THE PROFESSION TO THE PUBLIC, AND OF THE OBLIGATIONS OF THE PUBLIC TO THE PROFESSION.

ARTICLE I.

DUTIES OF THE PROFESSION TO THE PUBLIC.

SECTION 1. As good citizens, it is the duty of physicians to be ever vigilant for the welfare of the community, and to bear their part in sustaining its institutions and burdens; they should also be ever-ready to give counsel to the public in relation to matters especially appertaining to their profession, as on subjects of medical police, public hygiene and legal medicine. It is their province to enlighten the public in regard to quarantine regulations—the location, arrangement, and dietaries of hospitals, asylums, schools, prisons, and similar institutions—in relation to the medical police of towns, as drainage, ventilation, etc.—and in regard to measures for the prevention of epidemic and contagious diseases; and when pestilence prevails, it is their duty to face the danger, and to continue their labors for the alleviation of the suffering, even at the jeopardy of their own lives.

SEC. 2. Medical men should also be always ready, when called on by the legally constituted authorities, to enlighten coroners' inquests, and courts of justice, on subjects strictly medical—such as involve questions relating to sanity, legitimacy, murder by poisons or other violent means, and in regard to the various other subjects embraced in the science of Medical Jurisprudence. But in these cases, and especially where they are required to make a post-mortem examination, it is just, in consequence of the time, labor, and skill required, and the responsibility and risk they incur, that the public should award them a proper honorarium.

SEC. 3. There is no profession, by the members of which eleemosynary services are more liberally dispensed

than the medical, but justice requires that some limits should be placed to the performance of such good offices. Poverty, professional brotherhood, and certain of the public duties referred to in the first section of this article, should always be recognized as presenting valid claims for gratuitous services; but neither institutions endowed by the public or by rich individuals, societies for mutual benefit, for the insurance of lives or for analogous purposes, nor any profession or occupation, can be admitted to possess such privilege. Nor can it be justly expected of physicians to furnish certificates of inability to serve on juries, to perform militia duty, or to testify to the state of health of persons wishing to insure their lives, obtain pensions, or the like, without a pecuniary acknowledgment. But to individuals in indigent circumstances, such professional services should always be cheerfully and freely accorded.

SEC. 4. It is the duty of physicians, who are frequent witnesses of the enormities committed by quackery, and the injury to health and even destruction of life caused by the use of quack medicines, to enlighten the public on these subjects, to expose the injuries sustained by the unwary from the devices and pretensions of artful empirics and impostors. Physicians ought to use all the influence which they may possess, as professors in Colleges of Pharmacy, and by exercising their option in regard to the shops to which their prescriptions shall be sent, to discourage druggists and apothecaries from vending quack or secret medicines, or from being in any way engaged in their manufacture and sale.

ARTICLE II.

OBLIGATIONS OF THE PUBLIC TO PHYSICIANS.

SECTION 1. The benefits accruing to the public, directly and indirectly, from the active and unwearied beneficence of the profession, are so numerous and important, that

physicians are justly entitled to the utmost consideration and respect from the community. The public ought likewise to entertain a just appreciation of medical qualifications; to make a proper discrimination between true science and the assumptions of ignorance and empiricism—to afford every encouragement and facility for the acquisition of medical education—and no longer to allow the statute-books to exhibit the anomaly of exacting knowledge from physicians, under a liability to heavy penalties, and of making them obnoxious to punishment for resorting to the only means for obtaining it.

MEMBERS OF THE SOCIETY.

HONORARY MEMBERS.

ANDREW JACOB FULLER,	Bath, Maine.
SAMUEL HAYES PENNINGTON,	Newark, N. J.
ARTHUR WARD,	Newark, N. J.
PAUL AUGUSTINE STACKPOLE,	Dover, N. H.
ADRIAN THEODORE WOODWARD,	Brandon, Vt.
WILLIAM McCOLLOM,	Brooklyn, N. Y.
SAMUEL THOMAS HUBBARD,	New York City.
AGRIPPA NELSON BELL,	Brooklyn, N. Y.
JOHN SHAW BILLINGS, U. S. A.,	Washington.
THOMAS ADDIS EMMETT,	New York City.
EDWIN MOTT MOORE,	Rochester, N. Y.
WILLIAM HENRY WELCH,	Baltimore, Md.
ROBERT FULTON WEIR,	New York City.
SIR JOSEPH LISTER,	London, Eng.
EDWARD G. JANEWAY,	New York City.
EDWARD R. SQUIBB,	Brooklyn, N. Y.
HON. CHARLES E. GROSS,	Hartford, Conn.
E. L. B. STICKNEY,	Springfi'd, Mass
DAVID WEBSTER,	New York City.
ALEXANDER J. C. SKENE,	Brooklyn, N. Y.
SIR JAMES GRANT,	Ottawa, Can.
HENRY O. MARCY,	Boston, Mass.
T. MITCHELL PRUDDEN,	New York.
WILLIAM W. KEEN,	Philadelphia.
T. GAILLARD THOMAS,	New York.
WILLIAM T. LUSK,	New York.
JAMES W. McLANE,	New York.
LANDON CARTER GRAY,	New York.

ACTIVE MEMBERS.

The names of those who have been Presidents are in Capitals.

HARTFORD COUNTY.

JAMES CAMPBELL, M.D., of Hartford, President.

JOSEPH A. COOGAN, M.D., of Windsor Locks, Vice President.

WILTON E. DICKERMAN, M.D., of Hartford, Clerk.

County Reporter, FREDERICK T. SIMPSON.

Censors—SAMUEL W. IRVING, M.D., JOSEPH B. HALL, M.D., HOWARD O. ALLEN, M.D.

Annual Meeting Third Wednesday in April.

HARTFORD:

GURDON W. RUSSELL, No. 207 Farmington Avenue.
HENRY P. STEARNS, No. 190 Retreat Avenue.
MELANCTHON STORRS, No. 91 Ann Street.
Horace S. Fuller, No. 95 Trumbull Street.
John O'Flaherty, No. 406 Main Street.
Nathan Mayer, No. 742 Main Street.
William M. Hudson, No. 105 Elm Street.
George C. Jarvis, No. 98 High Street.
David Crary, No. 1074 Main Street.
John B. Lewis, No. 56 Prospect Street.
Gustavus P. Davis, No. 56 Prospect Street.
James Campbell, No. 2 Congress Street.
Charles E. Froelich, No. 103 Pratt Street.
Harmon G. Howe, No. 137 High Street.
William T. Bacon, No. 11 Pratt Street.
William W. Knight, No. 95 Trumbull Street.
Thomas D. Crothers, No. 50 Fairfield Avenue.
George L. Parmele, No. 65 Pratt Street.
Ellen F. H. Gladwin, No. 705 Asylum Street.
Samuel B. St. John, No. 68 Pratt Street.
George R. Shepherd, No. 32 Farmington Avenue.
Frederick S. Crossfield, No. 75 Pratt Street.
Marcus M. Johnson, No. 92 Pearl Street.
William D. Morgan, No. 702 Main Street.
John F. Axtelle, No. 635 Main Street.
Noah Cressy, No. 214 Pearl Street.
George K. Welch, No. 103 Pratt Street.
Phineas H. Ingalls, No. 112 High Street.
Edward K. Root, No. 702 Main Street.
Luther A. Davison, No. 11 Pratt Street.
John Howard, No. 119 Trumbull Street.
Charles D. Alton, No. 86 Farmington Avenue.
Oliver C. Smith, No. 44 High Street.
Joseph E. Root, No. 67 Pearl Street.
William Porter, Jr., No. 391 Allyn Street.

Frederick T. Simpson, No. 122 High Street.
George R. Miller, No. 182 High Street.
Charles C. Beach, No. 535 Trumbull Street.
Gideon C. Segur, No. 67 Farmington Avenue.
George C. Bailey, No. 65 Church Street.
Alva E. Abrams, No. 78 High Street.
Charles E. Taft, No. 98 HighStreet.
Thomas F. Kane, No. 517 Main Street.
Arthur J. Wolff, No. 1 Spring Street.
Ansel G. Cook, No. 164 High Street.
Mrs. L. Darnstadt Kean, No. 67 Pearl Street.
Edwin A. Down, No. 703 Asylum Avenue.
Daniel F. Sullivan, No. 64 Church Street.
Joseph H. Cahill, No. 51 Church Street.
Everett J. McKnight, No. 110 High Street.
Benjamin S. Barrows, No. 78 High Street.
Michael A. Bailey, No. 65 Church Street.
George N. Bell, No. 44 High Street.
Frank L. Waite, No. 68 Pratt Street.
Charles S. Stern, No. 75 Pratt Street.
Oliver K. Isham, No. 211 High Street.
Franklin L. Lawton, No. 18 Congress Street.
John H. Rose, No. 11 Pratt Street.
John B. Waters, No. 103 Trumbull Street.
Joseph B. Hall, No. 57 Pratt Street.
Edward O. Elmer, No. 813 Park Street.
Janet M. Weir, No. 38 Ives Street.
John F. Dowling, No. 1244 Main Street.
Philip D. Bunce, No. 48 Pratt Street.
Homer L. Law, No. 100 Washington Street.
*Wilton E. Dickerman, No. 51 Pratt Street.
Richard S. Griswold, No. 44 Church Street.
John B. Boucher, No. 306 Main Street.
Levi B. Cochran, No. 397 Capitol Avenue.
James W. Ward, No. 437 Capitol Avenue.
James H. Naylor, No. 153 Main Street.
Charles B. Botsford, No. 1393 Main Street.
James H. Standish, No. 378 Windsor Avenue.
Michael H. Gill, No. 151 Windsor Avenue.
John B. McCook, No. 390 Main Street.
John W. Felty, No. 340 Windsor Avenue.
George E. Slecher, No. 1395 Main Street.

AVON:

John L. North.

BERLIN:

Robert E. Ensign,
Charles A. Gillin.

BRISTOL:

John J. Wilson.
William W. Horton.

CANTON—Collinsville:

George F. Lewis,
Ida Gridley-Case,
William H. Crowley.

EAST HARTFORD:

Edward H. Griswold,
Thomas J. O'Connell,
Walter G. Murphy,

BURNSIDE:

Franklin H. Mayberry.

EAST WINDSOR—Broadbrook:

Howard O. Allen.

ENFIELD:

Rial Strickland.

Thompsonville:

Edward F. Parsons,
George F. Finch,
Henry G. Varno,
Thomas F. Reardon.

Hazardville:

Simon W. Houghton.

FARMINGTON:

Franklin Wheeler.
Charles Carrington,

GLASTONBURY:

Henry C. Bunce,
Charles G. Rankin.

South Glastonbury:

Henry M. Rising.
Harry B. Rising.

MANCHESTER,

Francis H. Whiton,
John T. Dooley,
John C. Taylor.

South Manchester:

Julian N. Parker,
William R. Tinker,
Thomas H. Weldon.

NEW BRITAIN:

*BENJAMIN N. COMINGS,
*George Clary,
Edwin B. Lyon,
Jay S. Stone,
Erastus P. Swasey,
Michael J. Coholan,
George J. Holmes,
Lawrence M. Cremin,
Wilbur T. Bunnell,
Samuel W. Irving,
Henry Doutteil,
Robert M. Clark,
Hermann Strosser,
Arvid Anderson,
Harris L. Paige,

PLAINVILLE:

John N. Bull,
Theodore G. Wright.

ROCKY HILL:

*Rufus W. Griswold.

SIMSBURY—Tariffville:

Charles M. Wooster.

SOUTHINGTON:

Willard G. Steadman.

SOUTH WINDSOR:

Mary S. Tudor.
Henry A. Deane,

SUFFIELD:

Jarvis K. Mason,
Matthew T. Newton,
Philo W. Street.

WEST SUFFIELD:

William E. Caldwell.

WETHERSFIELD:

Abner S. Warner.
*Roswell Fox.
Edward G. Fox.
Arthur W. Howard.

WINDSOR:

*Samuel A. Wilson,
Newton S. Bell.

WINDSOR LOCKS:

Sidney R. Burnap,
Joseph A. Coogan. —142

NEW HAVEN COUNTY.

FRANK W. WRIGHT, M.D , of New Haven, President.

OLIVER T. OSBORNE, M.D., of New Haven, Vice President.

JOSEPH H. TOWNSEND, M.D., of New Haven, Clerk.

County Reporter—R. B. GOODYEAR, M.D., of North Haven.

Censors—WALTER JUDSON, M.D., M. MAILHOUSE, M.D.,
J. M. BENEDICT, M.D.

Annual Meeting, third Thursday in April; semi-annual, third Thursday in October.

NEW HAVEN:

S. G. Hubbard, No. 23 College Street.
C. A. LINDSLEY, No. 15 Elm Street.
John Nicoll, No. 86 Broadway.
Moses C. White, No. 214 Crown Street.
T. H. Bishop, No. 215 Church Street.
FRANCIS BACON, No. 32 High Street.

*Exempted from taxation.

W. L. Bradley, No. 203 Crown Street.
A. E. Winchell, No. 60 Pearl Street.
Robert S. Ives, No. 339 Temple Street.
Evelyn L. Bissell, No. 308 Crown Street.
Arthur Ruickoldt, No. 71 Olive Street.
Walter Judson, No. 1145 Chapel Street.
Frederick Bellosa, No. 209 Orange Street.
S. D. Gilbert, No. 27 Wall Street.
S. H. Chapman, No. 193 Church Street.
J. P. C. Foster, No. 109 College Street.
F. O. White, No. 514 Howard Avenue.
W. H. Carmalt, No. 87 Elm Street.
T. H. Russell, No. 137 Elm Street.
F. H. Whittemore, No. 13 Elm Street.
C. P. Lindsley, No. 37 Elm Street.
H. Fleischner, No. 928 Grand Avenue.
M. Mailhouse, No. 151 Meadow Street.
M. C. O'Connor, No. 882 State Street.
Charles E. Park, No. 132 Olive Street.
F. E. Beckwith, No. 139 Church Street.
Gustavus Eliot, No. 209 Church Street.
J. E. Stetson, No. 106 High Street.
J. F. Luby, No. 667 Grand Avenue.
William W. Hawkes, No. 35 High Street.
Frank H. Wheeler, No. 221 Crown Street.
Herbert E. Smith, Medical College.
Benjamin L. Lambert, No. 358 Howard Avenue
F. W. Wright, No. 413 Orange Street.
Edward K. Roberts, No. 244 Grand Avenue.
Oliver T. Osborne, No. 252 York Street.
Lucy M. Peckham, No. 145 Green Street.
William G. Daggett, No. 189 Church Street.
Louis S. DeForest, No. 54 Wall Street.
Henry L. Swain, No. 232 York Street.
Mary B. Moody, Sherland Avenue cor. E. Grand Avenue.
G. F. Converse, junction Whalley Avenue and Goffe Street.
*J. H. Townsend, No. 39 College Street.
T. M. Cahill, No. 227 Franklin Street.
C. J. Foote, No. 305 Howard Avenue.
Marvin Smith, No. 73 Pearl Street.
S. J. Maher, No. 212 Orange Street.
Jay W. Seaver, No. 25 Lynwood Street.
Louis B. Bishop, No. 77 Whitney Avenue.
H. W. Ring, No. 46 Elm Street.
W. C. Welch, No. 44 College Street.
A. O. Baribault, No. 528 Chapel Street.
J. F. Baker, No. 630 State Street.
Rollin McNeil, No. 149 Bradley Street.
Edward M. McCabe, No. 224 Orange Street.
James M. Reilly, No. 337 Cedar Street.
Clarence E. Skinner, No. 67 Grove Street.
N. R. Hotchkiss, No. 150 Shelton Avenue.
Benjamin A. Cheney, No. 40 Elm Street.
Charles A. Tuttle, No. 129 Whalley Avenue.
Louis J. Gaynor, No. 213 York Street.
Harry B. Ferris, No. 118 York Street.
Edward S. Thomson, No. 190 Grand Avenue.
Henry F. Klenke, No. 730 Grand Avenue.
Leonard W. Bacon, Jr., No. 294 Elm Street.
Paul S. Robinson, No. 164 Grand Avenue.
Arthur N. Alling, No. 199 York Street.

A. W. Evans, No. 12 High Street.
R. A. McDonnell, No. 1142 Chapel Street.
E. P. Pittman, No. 52 Sylvan Avenue.
James A. Moore, No. 223 Grand Avenue.
Isaac N. Porter, No. 198 Dixwell Avenue.
Ernest H. Arnold, No. 46 York Square.
Robert E. Peck, No. 312 Elm Street.
Daniel A. Jones, No. 746 Chapel Street.
William C. Wurtemberg, No. 42 Elm Street.
Chauncey S. Lamb, No. 10 Park Street.
Robert O. Moody, No. 1204 Chapel Street.
Edward S. Moulton, No. 252 York Street.
Frederick N. Sperry, No. 76 Wooster Street.
William F. Verdi, No. 172 St. John Street.
Frederick W. Pirritte, No. 215 Orange Street.
Charles J. Bartlett, Medical College.
Morris D. Slattery, No. 352 Howard Avenue.
John J. Seibold, No. 224 Blatchley Avenue.
Ward H. Sanford, No. 39 Edwards Street.
William M. Kenna, No. 129 OliveStreet.
Ambrose K. Brennan, No. 179 Franklin Street.
Ralph S. Goodwin, Jr., No. 1079 Chapel Street.
Leonard C. Sanford, No. 216 Crown Street.
Willis H. Crowe, No. 68 Whalley Avenue.
Archibald McNeil, No. 149 Bradley Street.
Charles H. Robbins, 346 Grand Avenue.
Louis M. Gompertz, 39 Wooster Place.
Alfred G. Nadler, 122 Olive Street.
T. E. Beard, Jr., 163 Wooster Street.
William Springer, 276 Crown Street.
Joseph B. Monahan, 228 Congress Avenue.
Frederick C. Bishop, 1223 Chapel Street
James H. Flynn, 426 Howard Avenue.
Frank A. Kirby, 214 Dixwell Avenue.
Charles D. Phelps, 472 Orange Street.
William J. Sheehan, 383 Howard Avenue.
Clifford W. Kellogg, No. 144 Dwight Street.
John F. Sullivan, No. 204 Exchange Street.

Westville:

A. W. Marsh.

ANSONIA:

Louis E. Cooper,
Frederick C. Goldstein.

BRANFORD:

C. W. Gaylord,
Walter Zink,
A. J. Tenny,
George H. Townsend.

CHESHIRE:

M. N. Chamberlain.
E. T. Cornwall.

DERBY:

T. J. O'Sullivan,
F. N. Loomis,
Royal W. Pinney.

EAST HAVEN:

Charles W. Holbrook.

GUILFORD:

George H. Beebe.

HAMDEN:

E. D. Swift,
†O. F. Treadwell,

Whitneyville:

Henry H. Smith.

MADISON:

*D. M. Webb.

MERIDEN:

*Asa H. Churchill,
C. H. S. Davis,
N. Nickerson,
A. W. Tracy,
E. T. Bradstreet,
J. D. Eggleston,
Edward W. Smith,
O. J. D. Hughes,

†P. O. New Haven.

*Exempted from taxation.

Ava H. Fenn,
E. W. Pierce,
F. P. Griswold,
E. D. Hall,
H. W. Delesdernier,
H. A. Meeks,
John L. Gartland,
William Galvin,
J. W. H. La Pointe.

MILFORD:

E. B. Heady,
E. C. Beach,
A. L. Tuttle.

NAUGATUCK:

Frank B. Tuttle,
Thomas M. Bull,
Frederick A. Spring,
James W. Robbins,
William J. Delaney,
Edwin H. Johnson.

NORTH HAVEN:

R. B. Goodyear.

ORANGE—West Haven:

J. F. Barnet,
William V. Wilson,
Durell Shephard.

OXFORD:

Lewis Barnes.

SEYMOUR:

Frank A. Benedict,
Elias W. Davis.

WALLINGFORD:

J. D. McGaughey,
C. H. Atwater,
William S. Russell,
William P. Wilson.

WATERBURY:

Edward L. Griggs,
F. E. Castle,
E. W. McDonald,
Walter H. Holmes,
Walter L. Barber,
C. W. S. Frost,
Charles S. Rodman,
J. M. Benedict,
Thomas L. Axtelle,
Carl E. Munger,
Bernard A. O'Hara,
John F. Hayes,
Caroline R. Conkey,
Augustin A. Crane,
Patrick T. O'Connor,
John D. Freney,
Charles A. Hamilton,
George O. Robbins,
Isaac P. Fiske,
Charles H. Brown,
Edward W. Goodenough,
Myron L. Cooley,
Frederick G. Graves,
George Holbrook,
John R. Poore,
James L. Moriarty,
Daniel J. Maloney,
Thomas J. Kilmartin.

Waterville:
Joseph S. Holroyd. —189

NEW LONDON COUNTY.

ABIEL W. NELSON, M.D., of New Loudon, President.

WILLIAM WITTER, M.D., of Norwich, Vice President.

CHARLES B. GRAVES, M.D., No. 22 Franklin Street, New London, Clerk.

County Reporter—CHARLES B. GRAVES, M.D., of New London.

Censors—L. S. PADDOCK, M.D., WM. M. BURCHARD, M.D.,
F. N. BRAMAN, M.D.

Annual Meeting First Thursday in April; semi-annual, first Thursday in October.

COLCHESTER:

Myron W. Robinson,
William A. Korn,
James T. Mitchell.

EAST LYME—Niantic:

Frederick H. Dart,
Edward C. Chipman.

GRISWOLD—Jewett City:

George H. Jennings.

GROTON:

Edmund P. Douglass,
Frank W. Hewes.

LEBANON:

Norman L. Drake.

MONTVILLE—Uncasville:

Morton E. Fox,
William M. Burchard.

NEW LONDON:

Abiel W. Nelson,
FRANCIS N. BRAMAN,
John G. Stanton,
*Charles B. Graves,
Joseph R. Crofton,
Hiram B. Thomson,
Harold H. Heyer,
Carlisle F. Ferrin,
Thomas W. Rogers,
Carl A. Williams,
James B. Griswold.

NORWICH:

Lewis S. Paddock,
William Witter,
William S. C. Perkins,
Patrick Cassidy,
Leonard B. Almy,
Anthony Peck,
Julian LaPierre,
E. P. Brewer,
N. P. Smith,
Patrick H. Harriman,
Witter K. Tingley,
William T. Browne,
George R. Harris,
Charles H. Perkins,
Rush W. Kimball,
Charles V. Buttler,
James J. Donahue,
Harvey E. Higgins.

Taftville:

George Thompson.

Yantic:

Herbert H. Howe.

STONINGTON:

Charles E. Brayton,
George D. Stanton.

Mystic:

Frank A. Coates,
A. M. Purdy.

Old Mystic:

*Albert T. Chapman,
William H. Gray.

VOLUNTOWN:

Warren Russell Davis.

WATERFORD:

George M. Minor. —50

FAIRFIELD COUNTY.

JOHN C. LYNCH, M.D., of Bridgeport, President.

WATSON E. RICE, M.D., of Stamford, Vice President.

WILLIAM M. GRAY, M.D., of Bridgeport, Clerk.

County Reporter—D. CHESTER BROWN, of Danbury.

Censors—F. B. BAKER, M.D., J. W. Wright, M.D.,
W. H. Donaldson, M.D.

Annual Meeting, Second Tuesday in April, at Bridgeport; semi-annual in October.

BRIDGEPORT:

Andrew J. Smith, No. 85 Barnum Avenue.
GEORGE L. PORTER, No. 266 State Street.
Robert Lauder, No. 192 Fairfield Avenue.
Curtis H. Bill, No. 285 State Street.
N. E. Wordin, No. 174 Fairfield Avenue.
F. M. Wilson, No. 317 State Street.
T. F. Martin, No. 115 Golden Hill Street.
F. B. Downs, No. 256 State Street.
J. W. Wright, No. 229 State Street.
A. W. Lyons, No. 289 State Street.

*Exempted from taxation.

BRIDGEPORT—*Continued:*

*A. A. Holmes, No. 316 Broad Street.
Charles C. Godfrey, No. 248 State Street.
S. M. Garlick, No. 316 State Street.
Henry Blodget, No. 313 State Street.
J. C. Lynch, No. 284 State Street.
C. C. Hoyt, No. 623 State Street.
G. W. Osborn, No. 339 Broad Street.
J. R. Topping, No. 131 East Main Street.
B. F. White, No. 276 State Street.
Jacob May, No. 348 Broad Street.
F. C. Graves, No. 309 State Street.
G. B. Cowell, No. 120 East Washington Avenue.
C. N. Haskell, No. 343 State Street.
George E. Ober, No. 129½ East Main Street.
B. DeF. Sheedy, No. 311 State Street.
D. C. DeWolfe, No. 289 Fairfield Avenue.
Harry S. Miles, No. 317 State Street.
Charles S. Banks, No. 248 State Street.
Fessenden L. Day, No. 313 State Street.
Edward Fitzgerald, No. 126 East Washington Avenue.
George S. Ford, No. 231 State Street.
Robert G. Leverty, No. 93 Washington Avenue.
Frank M. Tukey, No. 293 State Street.
*William W. Gray, No. 358 State Street.
James D. Gold, No. 282 State Street.
Reuben A. Lockhart, No. 8 North Washington Avenue.
Harriet A. Thompson, No. 233 Warren Street.
Frederick J. Adams, No. 252 State Street.
W. J. A. O'Hara, No. 259 East Main Street.
David M. Trecartin, No. 315 State Street.
G. Stanley Heft, No. 254 State Street.
Andrew M. Ewing, State Street.
Michael M. Rowe.
Harry W. Fleck, No. 311 State Street.
Thomas L. Ellis, No. 316 State Street.
Charles R. Townsend, 254 State Street.

BETHEL:

A. E. Barber,
Charles R. Hart.

BROOKFIELD:

Junius F. Smith.

DANBURY:

F. P. Clark,
E. A. Stratton,
W. S. Watson,
D. Chester Browne,
W. F. Follansbee,
H. F. Brownlee,
John H. Benedict,
Nathaniel Selleck,
Clayton P. Bennett,
William F. Wood,
George E. Lemmer,
Charles F. Craig,
John A. Wade,
William F. Gordon.

DARIEN:

George H. Noxon.

NOROTON:

WM. G. BROWNSON.

FAIRFIELD:

W. H. Donaldson.

GREENFIELD HILL:

M. V. B. Dunham.

SOUTHPORT:

Robert E. Purdue,
Joseph L. Hetzel.

GREENWICH:

Frank Terry Brooks.

HUNTINGTON—SHELTON:

Gould A. Shelton,
D. A. Richardson,
William S. Randall.

*Exempted from taxation.

MONROE:
John G. Stevens.

Stepney:
SETH HILL.

NEW CANAAN:
Clarence H. Scoville.

NEWTOWN:
Edward M. Smith.

NORWALK:
James G. Gregory,
R. L. Higgins,
S. H. Huntington,
William J. Tracey.

South Norwalk:
W. C. Burke, Jr.,
A. N. Clark,
C. G. Bohannan,
Lauren M. Allen,
Henry C. Sherer,
John T. Kennedy,
Jean Dumortier,
Wright B. Bean.

East Norwalk:
Frederick B. Baker.

REDDING:
Ernest H. Smith.

RIDGEFIELD:
Russell W. Lowe.
Willis E. Weed.

STAMFORD:
A. M. Hurlburt,
Samuel Pierson,
A. N. Phillips,
C. R. Hexamer,
P. P. Van Vleet,
F. Schavior,
Wm. A. B. Treadway,
F. P. Rogers,
Rosavelle G. Philip,
James A. Meek,
George Sherrill,
Nathaniel P. Washburne,
Watson E. Rice,
Frank M. Tiffany,
Daniel A. Hanrahan,
Frederick L. Mullville,
David W. McFarland.

STRATFORD:
W. B. Cogswell,
G. F. Lewis.

WESTON—Lyon's Plains:
F. Gorham.

WESTPORT:
George B. Bouton,
F. Powers,
Loren T. Day,
F. D. Ruland,
L. H. Wheeler,
J. M. Nolan.

WILTON:
A. B. Gorham.

Georgetown:
Howard P. Mansfield.

South Wilton:
Edward Everett Smith.
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WINDHAM COUNTY.

WILLIAM H. JUDSON, M.D., of Danielson, President.

ROBERT C. WHITE, M.D., of Willimantic, Vice President.

LAURA H. HILLS, M.D., 17 North Street, Willimantic, Clerk.

County Reporter—ASHAEL E. DARLING, M.D., of Killingly.

Censors—T. M. HILLS, M.D., LOWELL HOLBROOK, M.D.,
E. H. DAVIS, M.D.

BROOKLYN:
A. H. Tanner.

CHAPLIN:
Charles M. Knight.

DANIELSON:
RIENZI ROBINSON,
Nathaniel Hibbard,
W. H. Judson,

C. J. Le Clair,
Frank H. Coops,
Clarence Simonds.

KILLINGLY:
Ashael E. Darling,
Henry L. Hammond.

East Killingly:
Charles E. Hill.

PLAINFIELD:
E. H. Davis.

Moosup:
Charles N. Allen,
W. W. Adams.

Central Village:
James L. Gardner.

POMFRET:
S. B. Overlock.

Abington:
Ezra B Pike.

PUTNAM:
John B. Kent,
F. A. Morrell,
Omar LaRue,

THOMPSON:
LOWELL HOLBROOK.

No. Grosvenor Dale:
J. F. McIntosh.

WINDHAM:
F. E. Guild.

Willimantic:
Frederick Rogers,
T. MORTON HILLS,
C. J. Fox,
T. R. Parker,
John Weldon,
A. D. David,
R. C. White,
*Farnham O. Bennett,
George W. May,
*Laura H. Hills.

WOODSTOCK—East Woodstock:
Charles C. Gildersleeve.

Woodstock Valley:
Henry R. Lowe. 35

LITCHFIELD COUNTY.

WILLIAM S. MACLAREN, M.D., of Litchfield, President.

EDWARD H. WELCH, M.D., of West Winsted, Vice President.

JOHN C. KENDALL, M.D., of Norfolk, Clerk.

County Reporter—GEORGE D. FERGUSON, M.D., of Thomaston.

Censors—R. S. GOODWIN, M.D., J. L. BUEL, M. D.,
W. L. PLATT, M.D.

Annual Meeting, fourth Tuesday in April; semi-annual, second Tuesday in October.

BARKHAMSTED—Riverton:
H. D. Moore.

CORNWALL—Cornwall Bridge:
W. M. S. Curtis.

GOSHEN:
J. H. North.

KENT:
W. M. Barnum.

LITCHFIELD:
C. O. Belden,
J. T. Sedgwick,
John L. Buel,
W. S. MacLaren.
Charles I. Page,
Etta May Hadley-Judd.

NEW HARTFORD:
*Jerry Burwell,
Josiah Swett.

NEW MILFORD:
G. E. Staub.

Gaylordsville:
H. B. Griswold.

NORFOLK:
*John C. Kendall,
I. L. Hamant.

*Exempted from taxation.

Lucius D. Bulkley,
Frederick S. Dennis.

NORTH CANAAN--Canaan:
C. W. Camp,
F. H. Lee.

PLYMOUTH--Terryville:
W. P. Swett,
W. W. Wellington,
M. P. Robinson.

SALISBURY:
P. H. Sellew.

Lakeville:
W. Bissell,
G. H. Knight,
W. B. Bissell.

SHARON:
C. W. Bassett.

THOMASTON:
RALPH S. GOODWIN,
George D. Ferguson.

TORRINGTON:
William L. Platt,
T. S. Hanchett,
Elias Pratt,
J. W. Johnson,
J. S. Bissell,
J. D. Hayes,
A. L. House,
A. J. Barker,
C. H. Carlin.

WASHINGTON:
ORLANDO BROWN,
William J. Ford.

New Preston:
R. A. Marcy.

WATERTOWN:
W. S. Munger,
Eugene C. French.

WINCHESTER--Winsted:
E. L. Pratt,
W. S. Hulbert,
Salmon G. Howd.

West Winsted:
E. H. Welch,
W. S. Richards.

WOODBURY:
D. R. Rodger. —49

MIDDLESEX COUNTY.

JOHN E. LOVELAND, M.D., of Middletown, President.

ARTHUR J. CAMPBELL, of Middletown, Vice President.

FRANK K. HALLOCK, M.D., of Cromwell, Clerk.

County Reporter—GEORGE N. LAWSON, M. D. of Middle Haddam.

Censors—S. W. TURNER, M.D., GEORGE W. BURKE, M.D.,
M. C. HAZEN, M.D.

Annual Meeting, second Thursday in April; semi-annual, second Thursday in October.

CHATHAM--Middle Haddam:
George N. Lawson.

East Hampton:
Albert Field.

CHESTER.
*Sylvester W Turner,
Fred. Sumner Smith.

CLINTON:
Herbert S. Reynolds.

CROMWELL:
Winthrop B. Hallock,
*Frank K. Hallock,
Charles E. Bush.

DURHAM:
Earl Mathewson.

EAST HADDAM:
M. W. Plumstead.

ESSEX:
Charles H. Hubbard.

*Exempted from taxation.

HADDAM:

Miner C. Hazen.

KILLINGWORTH:

Edward P. Nichols.

MIDDLETOWN:

*George W. Burke,
FRANCIS D. EDGERTON,
Wm. E. Fisher,
Charles E. Stanley,
James M. Keniston,
Henry S. Noble,
Michael D. Murphy,
John E. Bailey,
Arthur J. Campbell,
Arthur B. Coleburn,
J. Francis Calef,
John E. Loveland,
Kate C. Mead,
Frank E. Coudert,
Lewis Maitland,
Daniel A. Nolan,
Roger C. Downey.

OLD SAYBROOK:

John H. Granniss,
William D. Spencer.

PORTLAND:

Cushman A. Sears,
Frank E. Potter,
James Murphy.

SAYBROOK--Deep River:

Edwin Bidwell,
H. T. French.

WESTBROOK:

Thomas B. Bloomfield,
Frederick S. Cowles,
Charles D. Strong. —40

TOLLAND COUNTY.

ELI P. FLINT, M.D., of Rockville, President.

WILLIAM C. HAVEN, M.D., of North Coventry, Vice President.

EDWIN T. DAVIS, M.D., of Ellington, Clerk.

County Reporter—C. B. NEWTON, M.D., of Stafford Springs.

Censors—E. P. FLINT, M.D., E. K. LEONARD, M.D.,
F. L. DICKINSON, M.D.

Annual Meeting, third Tuesday in April; semi-annual, third Tuesday in October.

BOLTON:

*CHAS. F. SUMNER.

COVENTRY:

William C. Haven.

South Coventry:

W. L. Higgins,
Philip H. Edwards.

ELLINGTON:

*E. T. Davis.

MANSFIELD--Mansfield Depot:

F. E. Johnson.

ROCKVILLE:

Frederick Gilnack,
E. K. Leonard,
T. F. Rockwell,
Fred W. Walsh,
E. P. Flint,
T. F. O'Laughlin.

SOMERS:

A. L. Hurd.

STAFFORD--Stafford Springs:

C. B. NEWTON,
F. L. Smith,
Daniel Sullivan.

TOLLAND:

W. N. Simmons.

VERNON:

*A. R. GOODRICH. —18

*Exempted from taxation.

ALPHABETICAL LIST

OF THE

MEMBERS OF THE CONNECTICUT MEDICAL SOCIETY,

With date and place of Graduation, and Post-Office Address.

Name.	Medical Graduation.	P. O. Address.
Abrams, Alva Elnathan,	Albany, '81,	Hartford.
Adams, Frederick Joseph,	Univ. N. Y., '95,	Bridgeport.
Adams, William Waldo,	Bellevue, '91,	Moosup.
Allen, Charles Noah,	Univ. Vt., '81,	Moosup.
Allen, Howard Oliver,	Univ. N. Y., '79,	Broad Brook.
Allen, Lauren Melville,	P. & S., N. Y., '80,	So. Norwalk.
Alling, Arthur Nathaniel, B.A.,	P. & S., N. Y., '91,	New Haven.
Almy, Leonard Ballou, B.A., '72,	Bellevue, '76,	Norwich.
Alton, Charles De Lancey,	Bellevue, '75,	Hartford.
Anderson, Arvid,	Univ. Mich., '93.	New Britain.
Arnold, Ernest Hermann,	Yale, '94,	New Haven.
Atwater, Caleb Huntington,	P. & S., N. Y., '71,	Wallingford.
Axtelle, John Franklin,	L. I. Hosp. Coll., '71,	Hartford.
Axtelle, Thomas Lincoln,	Bellevue, '81,	Waterbury.
Bacon, Francis,	Yale, '53,	New Haven.
Bacon, Leonard Woolsey, Jr.,	Yale, '92,	New Haven.
Bacon, William Turner, B.A., Yale, '68, M.A., '71,	Univ. N. Y., '71,	Hartford.
Bailey, George Cornelius,	Univ. N. Y., '86,	Hartford.
Bailey, John Elmore,	P. & S., N. Y., '85,	Middletown.
Bailey, Michael Angelo,	P. & S., Balt., '93,	Hartford.
Baker, Frederick Birdseye,	Univ. Md., '88,	E. Norwalk.
Baker, John Francis,	L. I. Hosp. Coll., '89.	New Haven.
Banks, Charles Lincoln,	P. & S., N. Y., '91,	Bridgeport.
Barber, Alvin Elizur,	Berkshire, '54,	Bethel.
Barber, Walter Lewis,	Bellevue, '73,	Waterbury.
Baribault, Arthur Octave,	Vict. Med. Col., '89,	New Haven.
Barker, Abram James,	Bellevue, '97,	Torrington.
Barnes, Irving Ferguson,	Univ. N. Y., '90,	Collinsville.
Barnes, Lewis, B.A., M.A., '47,	Buffalo Univ., '50,	Oxford.
Barnett, John Frederick,	Yale, '69,	West Haven.
Barnum, Walter Milo,	P. & S., N. Y., '83,	Kent.
Barrows, Benj. Safford, Ph.B., '83,	Univ. N. Y., '87,	Hartford.
Bartlett, Charles Joseph, B.A. Yale '92. M.A., Yale '94,	Yale '95,	New Haven.
Bassett, Clarence Wheeler,	Univ. N. Y., '82,	Sharon.
Beach, Charles Coffing,	P. & S., N. Y., '82,	Hartford.
Beach, Edward Charles,	Yale, '88,	Milford.
Bean, Wright Butler,	P. & S., N. Y., '95,	South Norwalk.
Beard, Theodore Edward, Jr.,	Yale, '97,	New Haven.

In preparing this list the Secretary has followed the list in the Proceedings of 1892, made with great care and labor by Dr. J. B. Lewis for the Centennial year. It may be relied upon as being correct.

Name.	Medical Graduation.	P. O. Address.
Beckwith, Frank Edwin, M.A., '81,	P. & S., N. Y., '71,	New Haven.
Beebe, George Hoxie,	Univ. N. Y., '78,	Guilford.
Belden, Charles Ogilvie,	P. & S., N. Y., '82,	Litchfield.
Bell, George Newton,	Yale, '92,	Hartford.
Bell, Newton Stephen,	Univ. Vt., '64,	Windsor.
Bellosa, Frederick,	Yale, '72,	New Haven.
Benedict, Frank Allen,	P. & S., N. Y., '87,	Seymour.
Benedict, John Howe,	Conn.Med. Soc., '58,	Danbury.
Benedict, John Mitchell,	Univ. N. Y., '82,	Waterbury.
Bennett, Clayton Powers,	P. & S., N. Y., '90,	Danbury.
Bennett, Farnham Orris,	Berkshire, '59,	Willimantic.
Bidwell, Edwin,	Yale, '47,	Deep River.
Bill, Curtis Harvey,	Univ. N. Y., '59,	Bridgeport.
Bishop, Frederick Courtney, B.A., Yale, '92.	Yale, '95.	New Haven.
Bishop, Louis Bennett, B.A., 86,	Yale, '88,	New Haven.
Bishop, Timothy Huggins,	Yale, '60,	New Haven.
Bissell, Evelyn Lyman,	Yale, '60,	New Haven.
Bissell, Jerome Samuel,	Yale, '94,	Torrington.
Bissell, William, B.A., '53,	Yale, '56,	Lakeville.
Bissell, William Bascom, A.B., Yale '88.	P. & S., N. Y., '92,	Lakeville.
Blodget, Henry,	Bellevue, '81,	Bridgeport.
Bloomfield, Thomas Blanch,	P. & S., N. Y., '76,	Westbrook.
Bohannan, Charles Gordon,	Univ. N. Y., '78,	So. Norwalk.
Bolton, James Robert,	Univ. N. Y., '86,	Litchfield.
Botsford, Charles Porter,	Yale '94,	Hartford.
Boucher, John Bernard,	P. & S., Balt., '94,	Hartford.
Bouton, George Beriah,	Y., '56; N. Y. M., '56,	Westport.
Bradley, William Lockwood, B.A., '60,	Yale, '64,	New Haven.
Bradstreet, Edward Thomas, B.A., '74,	P. & S., N. Y., '77,	Meriden.
Braman, Francis Nelson,	Bellevue, '66,	New London.
Brayton, Charles Erskine,	P. & S., N. Y., '73,	Stonington.
Brennan, Ambrose Kirk,	Yale, '93,	New Haven.
Brewer, Edward Pliny, Ph.D.,	Dartmouth, '79,	Norwich.
Brooks, Frank Terry, B.A., Yale,	P. & S., '93,	Greenwich.
Brown, David Chester,	Yale, '84,	Danbury.
Brown, Charles Henry,	Univ. N. Y., '93,	Waterbury.
Brown, Orlando,	Yale, '51,	Washington.
Browne, William Tyler, Ph.B., '78,	Harvard, '82,	Norwich.
Brownlee, Harris Fenton,	P. & S., N. Y., '88,	Danbury.
Brownson, William Greene, M.A.,	Univ. N. Y., '65,	Noroton.
Bulkley, Lucius Duncan, M.A.,	P. & S., N. Y., '69,	Norfolk.
Buel, John Laidlaw,	P. & S., N. Y., '88.	Litchfield.
Bull, John Norris,	P. & S., N. Y., '78,	Plainville.
Bull, Thomas Marcus,	P. & S., N. Y., '87,	Naugatuck.
Bunce, Henry Clinton,	Yale, '50,	Glastonbury.
Bunce, Philip Dibble, A.B., Yale, '88,	P. & S., N. Y., '91,	Hartford.
Bunnell, Wilbur Pitkin,	Univ. N. Y., '84,	New Britain.
Burchard, William Metcalf,	Georgetown, '66,	Uncasville.
Burke, George Whitney, B.A., '91,	Yale, '43.	Middletown.
Burke, William Craige, Jr.,	L.I. Hosp. Coll., '75,	So. Norwalk.
Burke, William Patrick John,	Yale, '90,	New Haven.
Burnap, Sidney Rogers, A.B., Union, '58,	P. & S., N. Y., '62,	W'ds'r Locks.
Burns, Edward,	Univ. N. Y., '82,	New Britain.

Name.	Medical Graduation.	P. O. Address.
Burwell, Jeremiah,	Berkshire, '39,	New Hartford.
Bush, Charles Ellsworth,	Yale, '94,	Cromwell.
Buttler, Charles Voorhes,	Univ. N. Y., '93,	Norwich.
Cahill, Joseph Henry,	Balt. Univ., '92,	Hartford.
Cahill, Thomas Matthew,	Yale, '88,	New Haven.
Caldwell, William Elry,	Balt. Md. Col., '95,	W. Suffield.
Calef, Jeremiah Francis, B.A., '77,	Yale, '80,	Middletown.
Camp, Charles Welford,	Univ. N. Y., '75,	Canaan.
Campbell, Arthur Joseph,	P. & S., Balt., '85,	Middletown.
Campbell, James,	Univ. Vt., '71,	Hartford.
Carlin, Charles Henry,	Univ. Mich., '96,	Torrington.
Carmalt, William Henry, M.A., '81,	P. & S., N. Y., '61,	New Haven.
Carrington, Charles,	P. & S., N. Y., '60,	Farmington.
Case, Ida R. Gridley, B.A., Wes. Univ., '86; M.A., Wes., '88,	P. & S., Boston, '89,	Collinsville.
Cassidy, Patrick,	Univ. Vt., '65,	Norwich.
Castle, Frank Edwin,	Yale, '70,	Waterbury.
Chamberlain, Myron Newton, B.A., '57,	Yale, '66,	Cheshire.
Chapman, Albert Taylor,	P. & S., N. Y., '64,	Old Mystic.
Chapman, Sherman Hartwell, B.A., '53, M.A., '66,	P. & S., N. Y., '69,	New Haven.
Cheney, Benjamin Austin, B.A., '88,	Yale, '90,	New Haven.
Chipman, Edward Clifford,	P. & S., N. Y., '91,	Niantic.
Churchill, Asa Hopkins,	Yale, '57,	Meriden.
Clark, Arthur Norman,	P. & S., N. Y., '83,	So. Norwalk.
Clark, Franklin Pierce,	P. & S., N. Y., '76,	Danbury.
Clark, Robert Moses,	Univ. Pa., '91,	New Britain.
Clary, George, A.B., '52, Dartmouth,	Yale, '57,	New Britain.
Coates, Franklin Avery, A.B., '72; A.M., '75,	P. & S., N. Y., '75,	Mystic.
Cochran, Levi Bennett,	Univ. Pa., '93,	Hartford.
Cogswell, William Badger,	Bellevue, '81,	Stratford.
Coholan, Michael James,	Univ. N. Y., '65,	New Britain
Coleburn, Arthur Burr,	P. & S., N. Y., '90,	Middletown.
Comings, Benjamin Newton, B.A., M.A.,	Dartmouth, '42, Castleton, Vt., '45,	New Britain.
Conkey, Caroline Root,	W. Med., N. Y., '81,	Waterbury.
Converse, George Frederick,	Yale, '87,	New Haven.
Coogan, Joseph Albert,	Bellevue, '76,	W'ds'r Locks.
Cook, Ansel Granville,	P. & S., N. Y., '87,	Hartford.
Cooley, Myron Lynus,	Buffalo, '86,	Southbury.
Cooper, Louis Edward, Ph.B., '84,	Yale, '86,	Ansonia.
Coops, Frank Harvey,	P. & S., Balt., 96,	Danielson.
Cornwall, Edward Thomas,	P. & S., N. Y., '81,	Cheshire.
Coudert, Frank Edmonds, Ph.D.,	Univ. N. Y., '90,	Middletown.
Cowell, George B.,	P. & S., N. Y., '88,	Bridgeport.
Cowles, Frederick Stanley,	Yale, '93,	Westbrook.
Craig, Charles Franklin,	Yale, '94,	Danbury.
Crane, Augustin Averlll, B.A., '85,	Yale, '87,	Waterbury.
Crary, David,	Yale, '69,	Hartford.
Cremin, Lawrence Michael,	Univ. N. Y., '81,	New Britain.
Cressy, Noah, Ph.D.,	Berkshire, '62,	Hartford.
Crighton, Andrew John,	P. & S., Balt., '91,	Willimantic.
Crofton, Joseph Richard,	P. & S., N. Y., '89,	New London.

Name.	Medical Graduation.	P. O. Address.
Crossfield, Frederick Solon,	Bellevue, '78,	Hartford.
Crothers, Thomas Davison,	Albany, '65,	Hartford.
Crowe, Willis Hanford,	P. & S., N. Y., '95,	New Haven.
Crowley, William Holmes,	Buf. Med. Col., '90,	Collinsville.
Curtiss, Willlam Martin Stanley,	P. & S., Balt., '93,	Cornwall B.
Daggett, William Gibbons, B.A., '80,	Univ. Pa., '84,	New Haven.
Darby, Charles Sinclair,	Charl'st'n Med., '60,	Stamford.
Darby, Charles Sinclair, Jr.,	Univ. N. Y., '90,	Stamford.
Darling, Ashael Ebenezer,	Harvard, '72,	Killingly.
Dart, Frederick Howard.	P. & S., N. Y., '84,	Niantic.
David, Adelard David,	Dartmouth, '89,	Willimantic.
Davis, Charles Henry Stanley,	Univ. N. Y., '66,	Meriden.
Davis, Edwin Taylor,	Univ. Vt., '88,	Ellington.
Davis, Elias Wyman, B.A., Yale, '80.	Yale, '92,	Seymour.
Davis, Emory Hawkins,	Univ. Vt., '72,	Moosup.
Davis, Gustav Pierpont, B.A., '66,	P. & S., N. Y., '69,	Hartford.
Davis, Warren Russell,	Univ. Vt., '82,	Voluntown.
Davison, Luther Augustus,	Univ. N. Y., '82,	Hartford.
Day, Fessenden Lorenzo, B.A.,	Bellevue, '93,	Bridgeport.
Day, Loren True,	Yale, '80,	Westport.
Dean, Horace Camillus,	Univ. N. Y., '85,	New Britain.
Deane, Henry Augustus,	Dartmouth, '68,	South Windsor.
DeForest, Louis Shepard, B.A., '79; M.A., '91,	Univ. Jena, '85,	New Haven.
Delaney, William Joseph,	McGill Univ., '87,	Naugatuck.
Delesdernier, Horace William,	Univ. Vt., '85,	Meriden.
Dennis, Frederic Shepard, B.A., Yale, '72, M.R.C.S.,	Bellevue, '74,	Norfolk.
DeWolfe, Daniel Charles,	Univ. Vt., '86,	Bridgeport.
Dickerman, Wilton Elias, B. A., Amherst, '90,	Yale, '93,	Hartford.
Donahue, James Joseph,	P. & S., Balt. '96,	Norwich.
Donaldson, William Henry,	Univ. N. Y., '81,	Fairfield.
Dooley, John Thomas,	Univ. N. Y., '87,	Manchester.
Douglass, Edmund Peaslee,	Univ. N. Y., '89,	Groton.
Doutteil, Henry,	Yale, '79,	New Britain.
Dowling, John Francis,	L. I. Hosp. Coll., '90,	Hartford.
Down, Edwin Augustus,	P. & S., N. Y., '87,	Hartford.
Downey, Roger Charles,	Univ. Vt., '92,	Middletown.
Downs, Frederick Bradley,	Univ. N. Y., '78,	Bridgeport.
Drake, Norman Lucie,	Univ. N. Y., '91,	Lebanon.
Dumortier, Jean,	Univ. Ghent, Belg. '89,	So. Norwalk.
Dunham, Martin Van Buren,	Harvard, '67,	G'field Hill.
Edgerton, Francis Daniels, A.M., '61,	Univ. Vt., '61, P. & S., N. Y., '64,	Middletown.
Edwards, Philip Henry,	Univ. N. Y., '95,	So. Coventry.
Eggleston, Jeremiah Dewey,	P. & S., N. Y., '79,	Meriden.
Eliot, Gustavus, B.A., '77; A.M., '82,	P. & S., N. Y., '80,	New Haven.
Ellis, Thomas Long, B. A., Yale, '94,	Yale, '96,	Bridgeport.
Elmer, Oliver Edward,	P. & S., Balt., '94,	Hartford.
Ensign, Robert Eleazer,	Albany, '57,	Berlin.
Evans, Alexander William, Ph.B., '90,	Yale, '92,	New Haven.

Name.	Medical Graduation.	P. O. Address.
Ewing, Andrew Melville, C.M., Trin. Univ., '86,	M. R. C. S., '88,	Bridgeport.
Felty, John Wellington,	Jefferson, '84,	Hartford.
Fenn, Ava Hamlin,	P. & S., Balt., '86,	Meriden.
Ferguson, George Dean,	Univ. N. Y., '79,	Thomaston.
Ferrin, Carlisle Franklin, B.A., Univ. Vt., '91,	P. & S., N. Y., '95,	New London.
Ferris, Harry Burr, B.A., '87,	Yale, '90,	New Haven.
Field, Albert,	L. I. Coll.Hosp., '67,	E. Hampton.
Finch, George Terwilliger, B.A., M.A., '78,	Hobart, '75, Bellevue, '77,	Thomp'nville.
Fisher, William Edwin,	Univ. Pa., '76,	Middletown.
Fiske, Isaac Parsons,	Univ. N. Y., '75,	Waterbury.
Fitzgerald, Edward,	P. & S., Balt., '84,	Bridgeport.
Fleck, Harry Willard.	Univ. Pa., '96,	Bridgeport.
Fleischner, Henry,	Yale, '78,	New Haven.
Flint, Eli Percival,	Yale, '79,	Rockville.
Flynn, James Henry Joseph,	Yale, '95.	New Haven.
Follansbee, Willard Francis,	P. & S., Chic., '86,	Danbury.
Foote, Charles Jenkins, B.A., '83,	Harvard, '87,	New Haven.
Ford, George Skiff,	Bellevue, '93,	Bridgeport.
Ford, William J.,	Univ. N. Y., '84,	Washington.
Foster, John Pierpont Codrington, B.A., '69,	Yale, '75,	New Haven.
Fox, Charles James,	Univ. N. Y., '76,	Willimantic.
Fox, Edward Gager,	Univ. N. Y., '83,	Wethersfield.
Fox, Morton Earl,	L. I. Hosp. Coll., '93,	Montrose.
Fox, Roswell,	Univ. N. Y., '47,	Wethersfield.
French, Eugene Cowles,	Univ. Mich., '82,	Watertown.
French, Howard Truman,	P. & S., N. Y., '91,	Deep River.
Freney, John Daniel,	L. I. Coll.Hosp., '93,	Waterbury.
Froelich, Charles Edward, M.A., Univ. Copenhagen, '64,	Copenhagen, '70,	Hartford.
Frost, Charles Warren Selah,	P. &. S., N. Y., '80,	Waterbury.
Fuller, Horace Smith, Amherst, B.A., '58; A.M., '61,	P. & S., N. Y., '65,	Hartford.
Galvin, William,	Univ. Vt., '92,	Meriden.
Gardner, James Lester,	Univ. Vt., '81.	Central Village.
Garlick, Samuel Middleton, B.A., Dart., '74,	Harvard, '77,	Bridgeport.
Gartland, John Lawrence,	Univ. N. Y., '91.	Meriden.
Gay, George Clifton,	Univ. Mich., '90,	Waterbury.
Gaylord, Chas. Woodward, B.A., '70,	Yale, '72,	Branford.
Gaynor, Louis Joseph,	Univ. N. Y., '91,	New Haven.
Gilbert, Samuel Dutton, B.A., '69,	Yale, '71,	New Haven.
Gildersleeve, Charles Childs,	Yale, '96,	E. Woodstock.
Gill, Michael Henry,	Yale, '96,	Hartford.
Gillin, Charles Adelbert,	Univ. N. Y., '83,	Berlin.
Gilnack, Frederick,	P. & S., N. Y., '67.	Rockville.
Gladwin, Elllen Hammond,	W. Med., N. Y., '72,	Hartford.
Godfrey, Charles Cartlidge,	Dartmouth, '83, Yale, '88,	Bridgeport.
Gold, James Douglass, Ph.B.	P. & S., '91,	Bridgeport.
Gompertz, Louis Michael,	Yale, '96.	New Haven.
Goodenough, Edward Winchester, B.A., Yale, '87,	Yale, '93,	Waterbury.
Goodrich, Alfred Russell,	Berkshire, '46,	Vernon.

Name.	Medical Graduation.	P. O. Address.
Goodwin, Ralph Schuyler,	P. & S., N. Y., '66,	Thomaston.
Goodwin, Ralph Schuyler, Jr., Ph. B., Yale, '90,	P. & S., N. Y., '93,	New Haven.
Goodyear, Robert Beardsley,	Yale, '68,	North Haven.
Gordon, William Francis,	L. I. Hosp. Coll., '96.	Danbury.
Gorham, Andrew Bennett,	Yale, '79,	Wilton.
Gorham, Frank,	Yale, '76,	Lyon's Plain.
Grannis, John Henry,	Yale, '68,	Old Saybrook.
Graves, Charles Burr, B.A., '82,	Harvard, '86,	New London.
Graves, Frederick Chauncey,	Univ. N. Y., '88,	Bridgeport.
Graves, Frederick George,	Yale, '92,	Waterbury.
Gray, William Henry,	P. & S., N. Y., '89,	Old Mystic.
Gray, William Wetmore, B.S., Dickinson, '85.	Bellevue, '90,	Bridgeport.
Gregory, James Glynn, B.A., '65,	P. & S., N. Y., '68,	Norwalk.
Griggs, Edward Luther,	L. I. Hosp. Coll., '64,	Waterbury.
Griswold, Edward Hammond,	Univ. N. Y., '78,	E. Hartford.
Griswold, Frederick Pratt,	P. & S., N. Y., '76,	Meriden.
Griswold, Hamilton Byron,	Univ. Vt., '86,	Gayl'dsville.
Griswold, James Brown,	Dartmouth, '92.	New London.
Griswold, Julius E.,	Univ. N. Y., '78,	Portland.
Griswold, Richard Sill,	Bellevue, '96,	Hartford.
Griswold, Rufus White,	P. & S., N. Y., '54,	Rocky Hill.
Guild, Frank Eugene,	L. I. Hosp. Coll., '85,	Windham.
Goldstein, Frederick Carl,	Yale, '93,	Ansonia.
Hadley-Judd, Etta May,	Women's Med. Coll., Phila., '95,	Litchfield.
Hall, Edward Dormenio,	Harvard, '73,	Meriden.
Hall, Joseph Barnard,	Yale, '92,	Hartford.
Hallock, Frank Kirkwood, A.B., A.M., '82,	P. & S., N. Y., '85,	Cromwell.
Hallock, Winthrop Bailey,	L. I. Hosp. Coll., '64,	Cromwell.
Hammant, Irving Lewis,	L. I. Hosp. Coll., '90,	Norfolk.
Hamilton, Charles Allen,	Univ. Vt., '86,	Waterbury.
Hammond, Henry Louis, Ph.B., '64,	Harvard, '66,	Killingly.
Hanchett, Thatcher Swift,	Bellevue, '64,	Torrington.
Hanrahan, Daniel Aloysius,	Bellevue, '95,	Stamford.
Harriman, Patrick Henry,	Univ. N. Y., '84,	Norwich.
Harris, George Robert,	P. & S., N. Y., '85,	Norwich.
Hart, Charles Remington,	P. & S., N. Y., '59,	Bethel.
Haskell, Charles Nahum,	Univ. Vt., '90,	Bridgeport.
Haven, William Chadbourne,	Univ. N. Y., '77,	Coventry.
Hawkes, Wm. Whitney, B.A., '79,	Yale, '81,	New Haven.
Hawley, George Rufus,	L. I. Hosp. Coll., '92.	Danbury.
Hayes, James Dermot, B.S., Man. Coll., N. Y.,	Univ. N. Y., '94,	Torrington.
Hayes, John Francis,	Univ. N. Y., '79,	Waterbury.
Hazen, Miner Comstock,	Univ. Mich., '55,	Haddam.
Heady, Elias Buel,	Yale, 72,	Milford.
Hetzel, Joseph Linn,	Bellevue, '91.	Southport.
Hewes, Frank William,	Univ. Vt., '94,	Groton.
Heyer, Harold Hankinson,	Univ. N. Y., '87.	New London.
Hexamer, Carl Reisig, B.S., '83,	P. & S., N. Y., '86,	Stamford.
Hibbard, Nathaniel, A.B., '78,	Harvard, '82,	Dan'lsonville.
Higgins, Harry Eugene,	Univ. N. Y., '96.	Norwich.
Higgins, Royal Lacey,	Bellevue, '67,	Norwalk.
Higgins, William Lincoln,	Univ. N. Y., '90,	So. Coventry.
Hill, Charles Edwin, B.A., '76,	Harvard, '79,	E. Killingly.

Name.	Medical Graduation.	P. O. Address.
Hill, Seth,	Yale, '66,	Stepney.
Hills, Laura Heath,	W. Med. Coll., Pa.	Willimantic.
Hills, Thomas Morton,	Yale, '63,	Willimantic.
Holbrook, Charles Werden, M.A., Amherst, '93,	Yale, '96,	East Haven.
Holbrook, George,	Univ., Vt., '94,	Waterbury.
Holbrook, Lowell,	Univ. N. Y., '49,	Thompson.
Holmes, Arthur Almond,	Harvard, '65,	Bridgeport.
Holmes, George James,	Albany, '82,	New Britain.
Holmes, Walter Hamilton, A.B., '75,	Harvard, '79,	Waterbury.
Holroyd, Joseph Scripture,	P. & S., N. Y., '95.	Waterville.
Horton, William Wickham,	Univ. N. Y., '79,	Bristol.
Hotchkiss, Norton R.,	Univ. Md., '91,	New Haven.
Houghton, Simon Willard,	Bellevue, '79,	Hazardville.
House, Albert Louis,	Yale, '95,	Torrington.
Howard, Arthur Wayland,	Univ. N. Y., '90,	Wethersfield.
Howard, John,	Dartmouth, '81,	Hartford.
Howd, Salmon Jennings,	Jefferson, '83,	Winsted.
Howe, Harmon George,	Univ. Vt., '73, P. & S., N. Y., '75,	Hartford.
Howe, Herbert H.,	Univ. Vt., '80,	Yantic.
Hoyt, Curtis Clark,	P. & S., N. Y., '87,	Bridgeport.
Hubbard, Charles Henry,	Yale, '60,	Essex.
Hubbard, Stephen Grosvenor, M.A., '60,	Dartmouth, '43,	New Haven.
Hudson, William Miller, B.A., Yale, '53,	Jefferson, '55,	Hartford.
Hughes, Oliver John Davis, Ph.D., Univ. Heidelburg, '71, M. S., London,	L. I. Hosp. Coll., '75,	Meriden.
Huntington, Samuel Henry,	Yale, '76,	Norwalk.
Hurd, Alonzo L., B.S., Me., '82,	Univ. Vt., '91,	Somers.
Hulbert, William Sharon,	Univ. N. Y., '89,	Winsted.
Hurlbut, Augustus Moen, B.A., '76,	P. & S., N. Y., '79,	Stamford.
Ingalls, Phineas Henry, A.B., '77; A.M., Bowdoin, '85,	P. & S., N. Y., '80,	Hartford.
Irving, Samuel Wellington,	Yale, '91,	New Britain.
Isham, Oliver Kingsley,	Univ. N. Y., '88,	Hartford.
Ives, Robert Shoemaker, B.A., '64; M.A.,	Yale, '66,	New Haven.
Jarvis, George Cyprian,	Univ. N. Y., '60,	Hartford.
Jennings, George Herman,	L. I. Hosp. Coll., '75,	Jewett City.
Johnson, Edwin Hines,	Univ. Vt., '88,	Naugatuck.
Johnson, Frederick Eugene,	Univ. N. Y., '69,	Mansfield.
Johnson, John William,	P. & S., Balt., '93,	Torrington.
Johnson, Marcus Morton, Ph.B., Brown, '70,	Univ. N. Y., '77,	Hartford.
Jones, Daniel Albion, B.A., Yale, '84; D.M.D., Harvard, '89.	Yale, '92,	New Haven.
Judson, Walter, B.A., '64; M.A., '67,	P. & S., N. Y., '70,	New Haven.
Judson, William Henry,	Jefferson, '78,	Danbury.
Kane, Thomas Francis,	Bellevue, '87,	Hartford.
Kean, Mrs. L. Darnstadt,	Wom. Med., Pa., '87,	Hartford.
Kellog, Clifford Walcott,	Yale, '96,	New Haven.
Kendall, John Calvin, B.A., '70,	P. & S., N. Y., '75,	Norfolk.

Name.	Medical Graduation.	P. O. Address.
Keniston, James Mortimer,	Harvard, '71,	Middletown.
Kenna, William Matthew, Ph.B., Yale, '90,	Yale, '92,	New Haven.
Kennedy, John Timothy,	Univ. N. Y., '94,	So. Norwalk.
Kent, John Bryden,	Harvard, '69,	Putnam.
Kilmartin, Thomas Joseph,	Univ. N. Y., '95.	New Haven.
Kimball, Rush Wilmot, A.B., '87, Williams,	L. I. Hosp. Coll., '90,	Norwich.
Kirby, Frank Alonzo,	Columb. Univ., '95. Wash., D.C.	New Haven.
Klenke, Henry Frederick,	Univ. N. Y., '92,	New Haven.
Knight, Charles Milo,	Louisville, '93,	Chaplin.
Knight, George Henry,	P. & S., N. Y., '86,	Lakeville.
Knight, William Ward,	Univ. N. Y., '76,	Hartford.
Korn, William Alfred,	Yale, '92,	Colchester.
Lamb, Chauncey Stafford,	Buffalo, '93,	New Haven.
Lambert, Benjamin Lott,	Univ. N. Y., '83,	New Haven.
Law, Homer Lycurgus,	Jefferson, '69,	Hartford.
Lawson, George Newton, B.A., '90,	Yale, '92,	M. Haddam.
Lawton, Franklin Lyman, Ph.B., Yale, '90,	Yale, '93,	Hartford.
Lauder, Robert, M.A.,	Yale, '71,	Bridgeport.
LaPierre, Julian,	Bellevue, '71,	Norwich.
LaPointe, John William Henry,	Lavalle Univ., Montreal, '92,	Meriden.
LaRue, Omer,	Vict., Montreal, '71,	Putnam.
Lawlor, Timothy Chris. Ambrose,	Bellevue, '92,	Rockville.
LeClair, Charles Joseph,	Victoria, '87,	Dan'lsonville.
Lee, Frank Herbert,	Albany, '88,	Canaan.
Lemmer, George Edward,	Bellevue, '85,	Danbury.
Leonard, Elbridge Knowlton,	Conn. Med., S'y., '66,	Rockville.
Leverty, Robert Gordon,	Univ. N. Y., '95,	Bridgeport.
Lewis, George Francis, B.A., '64,	Yale, '65,	Collinsville.
Lewis, George Frederick, B.A., '77,	Yale, '84,	Stratford.
Lewis, John Benjamin,	Univ. N. Y., '53,	Hartford.
Lindsley, Charles Augustus, B.A., '49; M.A.,	Yale, '52,	New Haven.
Lindsley, Chas. Purdy, Ph. B., '75,	Yale, '78,	New Haven.
Lockhart, Reuben Arthur,	Yale, '91,	Bridgeport.
Look, Frank Byron,	Bowdoin, '84,	Hartford.
Loomis, Francis Newton, B.A., '81,	Yale, '83,	Birmingham.
Loveland, John E., A.B., '89,	Harvard, '92,	Middletown.
Lowe, Henry Russell,	Dartmouth, '82,	Woodst'k Vall'y
Lowe, Russell Walter,	Univ. N. Y., '89,	Ridgefield.
Luby, John Francis, Ph. B., '76,	P. & S., N. Y., '78,	New Haven.
Lynch, John Charles,	Univ. N. Y., '86,	Bridgeport.
Lyon, Edwin Bradbury,	Berkshire, '62,	New Britain.
Lyons, Andrew Wolff,	Columbus, '76,	Bridgeport.
MacLaren, William Stevenson,	P. & S., N. Y., '89,	Litchfield.
Maher, Stephen John,	Yale, '87,	New Haven.
Mailhouse, Max, Ph.B., '76,	Yale, '78.	New Haven.
Maitland, Lewis,	Univ. Pa., '95,	Middletown.
Maloney, Daniel Joseph,	Univ. N. Y., '96.	Waterbury.
Mansfield, Howard Parker,	L. I. Hosp. Coll., '93.	Georgetown.
Marcy, Robert Adrian,	Univ. N. Y., '82,	New Preston.
Marsh, Arthur Washburn,	Univ. Vt., '82,	Westville.

Name.	Medical Graduation.	P. O. Address.
Martin, Thomas Francis,	Univ. N. Y., '74,	Bridgeport.
Mason, Jarvis King, Yale, B.A., '55; M.A., '59,	Harvard, '61,	Suffield.
Mathewson, Earl,	P. & S., N. Y., '79,	Durham.
May, George William,	Milwaukee, '95,	Willimantic.
May, Jacob,	Rush, Chicago, '76,	Bridgeport.
Mayberry, Franklin Hayden,	Univ. Vt., '85,	Burnside.
Mayer, Nathan,	Cincinnati, '57,	Hartford.
McCabe, Edward Michael, B.A., '84,	Yale, '87,	New Haven.
McCook, John Butler,	P. & S., N. Y., '94,	Hartford.
McDonald, Edward Walsh,	Univ. N. Y., '71,	Waterbury.
McDonnell, Ralph Augustine, B.A., '90,	Yale, '92,	New Haven.
McFarland, David Walter,	Univ., N. Y., '85,	Stamford.
McGaughey, James David,	Jefferson, '70,	Wallingford.
McIntosh, James Fabien,	Victoria, '87,	N.G'sv'n'rd'le.
McKnight, Everett James, B.A., Yale, '76,	P. & S., N. Y., '79,	Hartford.
McNeil, Archibald,	Dartmouth, '96,	New Haven.
McNeil, Rollin,	Yale, '62,	New Haven.
Mead, Kate Campbell,	Wom. Med. Coll., Phila., '88,	Middletown.
Meek, James Albert,	McGill Univ., '75,	Stamford.
Meeks, Harold Albert,	Bellevue, '90,	Meriden.
Miles, Harry Shillingford, Ph.G., N. Y., '88,	P. & S., N. Y., '91,	Bridgeport.
Miller, George Root,	P. & S., Balt., '88,	Hartford.
Minor, George Maynard,	L. I. Hosp. Coll., '85,	Waterford.
Mitchell, James Thomas,	Univ. N. Y., '91,	Colchester.
Monahan, Joseph Bernard,	Dartmouth, '94,	New Haven.
Moody, Mary Blair,	Buffalo, '76,	New Haven.
Moody, Robert Orton, B.S., Cornell, '91,	Yale, '94,	New Haven.
Moore, Howard Doolittle,	Bellevue, '87,	Riverton.
Moore, James Albert, B.A., Yale, '92,	Yale, '94,	New Haven.
Morgan, William Dennison, A.B., Trinity, '72,	P. & S., N. Y., '76,	Hartford.
Moriarity, James Ligouri,	Harvard, '96,	Waterbury.
Morrell, Frederick Augustus, B.A., Oberlin, '91; M.A.,	L. I. Hosp. Coll., '85,	Putnam.
Moulton, Edward Seymour, B.A., Oberlin, '91; M.A.,	Yale, '94,	New Haven.
Mulville, Frederick Louis,	Bellevue, '96,	Stamford.
Munger, Carl Eugene, Ph.B., '80,	P. & S., N. Y., '83,	Waterbury.
Munger, Walter Seward,	Yale, '55,	Watertown.
Murphy, James,	Univ. Pa., '95,	Portland.
Murphy, Michael Daniel,	Bellevue, '84,	Middletown.
Murphy, Walter Graham,	Alb'y Med.Coll.,'90,	E. Hartford.
Nadler, Alfred Goldstein, B.A., Yale, '93,	Yale, '96,	New Haven.
Naylor, James Henry,	Univ. Vt., '95,	Hartford.
Nelson, Abiel Ward,	Harvard, '61,	New London.
Newton, Cyrus Brownlie,	Yale, '56,	Stafford S'gs.
Newton, Matthew Turner,	Yale, '51,	Suffield.
Nichols, Edward Payson, A.B., '48; A.M., '51,	P. & S., N. Y., '52,	Killingworth.
Nickerson, Nehemiah,	N.Y. Med. Coll.,'57,	Meriden.

Name.	Medical Graduation.	P. O. Address.
Nicoll, John,	Yale, '54,	New Haven.
Noble, Henry Smith, A.B., '59,	P. & S., N. Y., '71,	Middletown.
Nolan, Daniel Andrew, Ph.G., '94,	Med.Chir. Col., Pa.,	Middletown.
Nolan, Jacob Matthew,	P. & S., Balt., '94,	Westport.
North, James Howard,	L. I. Hosp. Coll., '73,	Goshen.
North, John Leopold,	Louisville, '94,	Avon.
Noxon, George Henry,	Balt. Med. Coll., '93,	Darien.
Ober, George Eugene,	Univ. Vt., '90,	Bridgeport.
O'Connell, Thomas James,	P. & S., Balt., '92,	E. Hartford.
O'Connor, Matthew Charles, A.B., '69,	P. & S., N. Y., '73,	New Haven.
O'Connor, Patrick Thomas,	Bellevue, '92,	Waterbury.
O'Flaherty, John,	Albany, '64,	Hartford.
O'Hara, Bernard Augustine,	Bellevue, '82,	Waterbury.
O'Hara, William James Aloysius,	P. & S., Balt., '93,	Bridgeport.
O'Laughlin, Thomas Francis,	Univ., N. Y., '96,	Rockville.
Osborn, George Wakeman, B.A., '84,	P. & S., N. Y., '87,	Bridgeport.
Osborne, Oliver Thomas,	Yale, '84,	New Haven.
O'Sullivan, Thomas Jefferson,	Bellevue, '76,	Birmingham.
Overlock, Selden Barden,	Bellevue, '89,	Pomfret.
Paddock, Lewis Sloat, M.A.,	N.Y. Med. Coll., '54	Norwich.
Page, Charles Ithamar,	P. & S., N. Y., '90,	Litchfield.
Paige, Harris Lee,	Jefferson, '96,	New Britain.
Park, Charles Edwin,	Yale, '81,	New Haven.
Parker, Julian Newell,	Yale, '67,	S. M'chester.
Parker, Theodore Raymond,	Univ. N. Y., '80,	Willimantic.
Parmele, George Luther, D.M.D.,	L. I. Hosp. Coll., '69,	Hartford.
Parsons, Edward Field, A.B., Williams, '48,	P. & S., N. Y., '58,	Thomp'ville.
Peck, Anthony, B.A., '72,	Univ. N. Y., '75,	Norwich.
Peck, George Augustus,	P. & S., N Y., '91,	Meriden.
Peck, Robert Ellsworth, Ph.B., Yale, '90,	Yale, '93,	New Haven.
Peckham, Lucy Creemer,	Wom.Med., Pa.,'85,	New Haven.
Perkins, Charles Harris,	P. & S., N. Y., '91,	Norwich.
Perkins, William Sheldon Clark,	P. & S., N. Y., '60,	Norwich.
Phelps, Charles Dickinson,	P. & S., N. Y., '95,	New Haven.
Philip, Rosavelle Gardner,	Wom. Med. Coll., N. Y. Inf., '75,	Stamford.
Phillips, Alfred Noroton,	P. & S., N. Y., '83,	Stamford.
Phinney, Elisha,	Yale, '35,	Yantic.
Pierce, Elbridge Worthington,	Univ. N. Y., '85,	Meriden.
Pierson, Samuel,	P. & S., N. Y., '81,	Stamford.
Pike, Ezra Barker,	Bowdoin, '97,	Abington.
Pinney, Royal Watson,	P. & S., N. Y., '88,	Derby.
Pirritte, Frederick Winchelle,	Univ. Toronto, '93,	New Haven.
Pitman, Edwin Parker, B.A., '86,	Dartmouth, '91,	New Haven.
Platt, William Logan,	P. & S., N. Y., '81,	Torrington.
Plumstead, Matthew Woodbury,	Jefferson, '87,	E. Haddam.
Poore, John Robinson,	Harvard, '94,	Waterbury.
Porter, George Loring, B.A., '59,	Jefferson, '62,	Bridgeport.
Porter, Isaac Napoleon, B.A., Lincoln Univ., '90,	Yale, '93,	New Haven.
Porter, William Jr.,	Chic.Med. Coll.,'81,	Hartford.
Potter, Frank Edward,	P. & S., N. Y., '89,	Portland.
Powers, Frederick,	P. & S., N. Y., '70,	Westport.
Pratt, Edward Loomis,	Univ. N. Y., '84,	Winsted.
Pratt, Elias,	P. & S., N. Y., '87,	Torrington.
Purdy, Alexander Marshall,	Univ. Vt., '84,	Mystic.

Name.	Medical Graduation.	P. O. Address.
Rainville, Frederick Edmund,	Univ. Vt., '91,	Wauregan.
Randall, William Sherman, Ph.B.,	Yale, '83,	Shelton.
Rankin, Charles Goodrich, A.M., '87, Williams, A.B., '84,	Chic.Med. Coll., '86,	Glastonbury.
Reardon, Thomas Francis,	Univ. Vt., '94,	Thompsonville.
Reilly, James Michael,	Yale, '78,	New Haven.
Reynolds, Herbert Sumner,	Univ. N. Y., '81,	Clinton.
Rice, Watson Emmons,	Univ. Mich., '72,	Stamford.
Richards, William Spencer,	Univ. N. Y., '89,	W. Winsted.
Richards, Dwight Alphonso,	Yale, '81,	Shelton.
Ring, Henry Wilson, A.B., '79; M.A.,	Me. Med. Coll., '81,	New Haven.
Rising, Harry Breed,	Yale, '95,	S. Glastonbury.
Rising, Henry Martin,	Yale, '68,	S.Glastonb'ry.
Robbins, Charles Henry,	Med. Coll., Balt., '95,	New Haven.
Robbins, George Orrin,	Yale, '79,	Waterbury.
Robbins, James Watson,	Bellevue, '80,	Naugatuck.
Roberts, Edward Kilbourne, Ph.B., '78,	Yale, '80,	New Haven.
Robinson, Myron Potter,	Yale, '95,	Terryville.
Robinson, Myron Winslow,	Berkshire, '60,	Colchester.
Robinson, Paul Skiff, Ph.B., Yale, '89,	Yale, '91,	New Haven.
Robinson, Rienzi,	L. I. Hosp. Coll., '69,	Danielson.
Rockwell, Thomas Francis,	Univ. N. Y., '81,	Rockville.
Rodger, David Robert, A.B., Hamilton, '82,	P. & S., N. Y., '88,	Woodbury.
Rodman, Charles Shepard,	P. & S., N. Y., '68,	Waterbury.
Rogers, Francis Joseph,	Univ. Pa., '73,	Stamford.
Rogers, Frederick,	Univ. N. Y., '63,	Willimantic.
Rogers, Thomas Weaver,	P. & S., N. Y., '90,	New London.
Root, Edward King,	Univ. N. Y., '79,	Hartford.
Root, Joseph Edward, B.S., '76, S.B., Boston Univ.,	P. & S., N. Y., '83,	Hartford.
Rose, John Henry,	Univ. N. Y., '92,	Hartford.
Rowe, Michael Matthew,	P. & S., Balt., '96,	Bridgeport.
Ruickoldt, Arthur,	Univ. Jena, '65,	New Haven.
Ruland, Fred Davis,	P. & S., N. Y., '89,	Westport.
Russell, George Washington,	Bellevue, '96,	Waterbury.
Russell, Gurdon Wadsworth, Trinity, B.A., '34; M.A., '37,	Yale, '37,	Hartford.
Russell, Thomas Hubbard, Ph.B., Yale, '72,	Yale, '75,	New Haven.
Russell, William Spencer,	Yale, '80,	Wallingford.
Russell, Willis Adams,	Univ. N. Y., '81,	Essex.
Sanford, George Willis,	Berkshire, '36,	Simsbury.
Sanford, Leonard Luther, B.A., Yale, '90,	Yale, '93,	New Haven.
Sanford, Ward Harding,	Balt. Med. Coll.,'95,	New Haven.
Sawtelle, Frederick George,	L. I. Hosp. Coll., '80,	Pomfret.
Schavior, Frederic,	P. & S., Balt., '87,	Stamford.
Scoville, Clarence Henry,	Balt. Med. Coll., '95,	New Canaan.
Sears, Cushman Allen,	Univ. N. Y., '62,	Portland.
Seaver, Jay Webber, B.A., '80,	Yale, '85,	New Haven.
Sedgwick, James Theodore,	Univ. N. Y., '85,	Litchfield.
Segur, Gideon Cross,	P. & S., N. Y., '82,	Hartford.
Seibold, John Jacob,	St. Louis Med. Coll., '91,	New Haven.
Selleck, Nathaniel,	Univ. N. Y., '89,	Danbury.

Name.	Medical Graduation.	P. O. Address.
Sellew, Phillip Hamilton,	Jefferson, '90,	Salisbury.
Sheedy, Bryan DeForest,	Univ. N. Y., '84,	Bridgeport.
Sheehan, William Joseph, B.S., Manhattan Col., '92,	Yale, '95,	New Haven.
Shelton, Gould Abijah, M.A., '91,	Yale, '69,	Shelton.
Shepard, Durell,	Yale, '64,	West Haven.
Shepard, George Reubens,	Yale, '66,	Hartford.
Sherer, Henry Clifford,	Univ. N. Y., '92,	So. Norwalk.
Sherman, Henry Arthur,	Jefferson, '88,	Putnam.
Sherrill, George,	P. & S., '91,	Stamford.
Simonds, Clarence,	Univ. N. Y., '97,	Danielson.
Simmons, Willard Nelson,	Univ. Vt., '89,	Tolland.
Simpson, Frederick Thomas, B.A., Yale, '79,	Me. Med. Coll., '84,	Hartford.
Skinner, Clarence Edward,	Yale, '91,	New Haven.
Slattery, Morris Dove,	Yale, '93,	New Haven.
Sleeper, George Everest,	Dartmouth, '95,	Hartford.
Smith, Andrew Jackson,	P. & S., N. Y., '63,	Bridgeport.
Smith, Edward Everett,	L. I. Hosp. Coll., '71,	So. Wilton.
Smith, Edward Montrose,	P. & S., N. Y., '82,	Newtown.
Smith, Edward Wier, A.B., Yale, '78,	McGill, Mont., '82,	Meriden.
Smith, Ernest Herman, A.B., Amherst, '85,	P. & S., '89,	Redding.
Smith, Frank Lewis,	Univ. N. Y., '75,	Stafford S'gs
Smith, Frederick Sumner, B.A., Yale, '79,	Yale, '82,	Chester.
Smith, Herbert Eugene, Ph.B., Yale, '79,	Univ. Pa., '82,	New Haven.
Smith, Henry Hubert,	Jefferson, '77,	Whitneyville.
Smith, Junius Foster,	L. I. Hosp. Coll., '90,	Brookfield.
Smith, Marvin,	Univ. N. Y., '83,	New Haven.
Smith, Newton Phineas,	P. & S., N. Y., '82,	Norwich.
Smith, Oliver Cotton,	L. I. Hosp. Coll., '83,	Hartford.
Spencer, William David,	P. & S., N. Y., '76,	Saybrook.
Sperry, Frederick Noyes,	Yale, '94,	New Haven.
Sprenger, William,	Univ. Vt., '91,	New Haven.
Spring, Frederick,	Univ. N. Y., '85,	Naugatuck.
Standish, James Herbert,	Univ. N. Y., '95,	Hartford.
Stanley, Charles Everett,	Univ. Pa., '76,	Middletown.
Stanton, George Dallas,	Bellevue, '65,	Stonington.
Stanton, John Gilman, B.A., Amherst, '70,	Wurtzburg, '73,	New London.
Staub, George Edwards,	L. I. Hosp. Coll., '93,	New Milford.
Steadman, Willard George,	Bellevue, '74,	Southington.
Stearns, Henry Putnam, B.A., Yale, '53; M.A., '56,	Yale, '55,	Hartford.
Stern, Charles Seymour,	Bellevue, '91,	Hartford.
Stetson, James Ebenezer,	Yale, '81,	New Haven.
Stevens, John Gale,	Yale, '84,	Monroe.
St. John, Samuel Benedict, B.A., Yale, '66,	P. & S., N. Y., '75,	Hartford.
Stone, Jay Stephen,	P. & S., N. Y., '65.	New Britain.
Storrs, Melancthon, B.A., Yale, '52,	Yale, '53,	Hartford.
Stowe, William Harvey,	Yale, '88,	New Haven.
Stratton, Edward Augustus,	Univ. N. Y., '83,	Danbury.
Street, Philo William,	Univ. Vt., '92,	Suffield.
Strickland, Rial,	Albany, '39,	Enfield.
Strong, Charles Daniel,	Yale, '93,	Westbrook.

Name.	Medical Graduation.	P. O. Address.
Strosser, Hermann,	Univ. Berlin, '84,	New Britain.
Sullivan, Daniel,	Univ. N. Y., 97.	Stafford Springs
Sullivan, Daniel Francis, A.B., Niagara Univ., '89,	Niagara Univ. '91,	Hartford.
Sullivan, John Francis, B.A., Yale, '90,	P. & S., N. Y., '94,	New Haven.
Sumner, Charles Fletcher,	Univ.W. N. Y., '40,	Bolton.
Swain, Henry Lawrence,	Yale, '84,	New Haven.
Swasey, Erastus Perry,	P. & S., N. Y., '69,	New Britain.
Swett, Josiah,	Univ. Vt., '78,	N. Hartford.
Swett, William Plummer,	Univ. Vt., '76,	Terryville.
Swift, Elisha Dean,	Univ. N. Y., '49,	Hamden.
Taft, Charles Ezra,	Harvard, '86,	Hartford.
Tanner, Alfred Herbert,	Bellevue, '74,	Brooklyn.
Taylor, John Clifton,	Mich. Univ., '91,	Scotland.
Tenney, Arthur John, Ph.B., Yale, '77,	Yale, '83,	Branford.
Thompson, George,	Me. Med. Coll.,'89,	Taftville.
Thompson, Harriet Adaline,	Women's Med. Col. Penn., '93,	Bridgeport.
Thomson, Edward Sanford,	P. & S., N. Y., '92,	New Haven.
Thomson, Hiram Benson,	Trin. Un., Tor., '88,	New London.
Tiffany, Frank Monroe, A.B., Amherst, '91,	Univ. Pa., '96,	Stamford.
Tingley, Witter Kinney,	Bellevue, '86,	Norwich.
Tinker, William Richard,	Univ. N. Y., '80,	S. M'chester.
Topping, Jacob Reed,	Univ. N. Y., '82,	Bridgeport.
Townsend, Charles Rodman,	Albany, '95.	Bridgeport.
Townsend, George Hodgson,	Bellevue, '93,	Branford.
Townsend, Jos. Hendley, B.A., Yale, '85,	Yale, '87,	New Haven.
Tracy, Andrew William,	McGill, Mont., '73,	Meriden.
Tracey, William Joseph,	Univ. N. Y., '89,	Norwalk.
Treadway, William A. Buckingham,	Univ. Mich., '83,	Stamford.
Treadwell, Oliver Ferd., B.A., Yale, '62,	Yale, '65,	Hamden.
Trecartin, David Munson,	Dartmouth, '94,	Bridgeport.
Tudor, Mary Starr,	Women's Med. Col., Phila., '93,	So. Windsor.
Tukey, Frank Martin, B.A., Bowdoin, '91,	Harvard, '94,	Bridgeport.
Turner, Sylvester Wooster, B.A., Yale, '42,	Yale, '46,	Chester.
Tuttle, Albert Lake,	Albany, '88,	Milford.
Tuttle, Charles Alling, Ph.B., Yale, '88,	Yale, '91,	New Haven.
Tuttle, Frank Benjamin,	Yale, '63,	Naugatuck.
Van Vleet, Peter P.,	Bellevue, '69,	Stamford.
Varno, Henry G.,	P. & S., Balt., '82,	Thomp'ville.
Verdi, William Francis,	Yale, '94,	New Haven.
Voorhes, Charles DeWitt,	Univ. N. Y., '89,	Groton.
Wade, John Alexander,	Bellevue, '93,	Danbury.
Waite, Frank Louis,	Bellevue, '88,	Hartford.
Walsh, Frederick William,	P. & S., Balt., '84,	Rockville.
Ward, James Ward,	P. & S., Balt., '95,	Hartford.
Warner, Abner Spicer, A.B., Dartmouth, '42,	Dartmouth, '48,	Wethersfield.

Name.	Medical Graduation.	P. O. Address.
Washburn, Nathaniel P, Ph.B., Yale, '71,	Univ. N. Y., '91,	Stamford.
Waters, John Bradford,	Univ. Vt., '90,	Hartford.
Weed, Willis Edward,	P. & S., N. Y., '83,	Ridgefield.
Weir, Janet Marshall,	Queen's Un. Kingston. Ont., '91,	Hartford.
Watson, Wilbur Seymour,	L. I. Hosp. Coll., '87.	Danbury.
Webb, Daniel Meigs, B.A., Yale, '46,	Yale. '49,	Madison.
Welch, Edward Hubbard,	Yale. '76,	W. Winsted.
Welch, George Kellogg,	P. & S., N. Y., '78,	Hartford.
Welch, William Collins,	Yale. '77,	New Haven.
Weldon, John,	Univ. N. Y., '83,	Willimantic.
Weldon, Thomas Henry,	Univ. N. Y., '83,	S. M'chester.
Wellington, William Winthrop,	Univ. Vt., '89,	Terryville.
Wheeler, Franklin, B.A., Yale, '47; M.A., Yale, '67,	P. & S., N. Y., '52,	Farmington.
Wheeler, Frank Henry, B.A., Yale, '80,	Yale. '82,	New Haven.
Wheeler, Lewis Hawley,	Yale, '97,	Westport.
White, Benjamin Franklin,	L. I. Hosp. Coll., '86,	Bridgeport.
White, Frederick Olin,	Yale. 73,	New Haven.
White, Moses Clark, B.A., Wesleyan, '45, M.A., Yale,	Yale. '54,	New Haven.
White, Robert Creighton,	Univ. Vt., '89,	Willimantic.
Whiton, Francis Henry,	Dartmouth, '72,	Manchester.
Whittemore, Frank Hamilton,	Bellevue, '74,	New Haven.
Williams, Carl Alonzo,	Hahneman Med. Coll., Phila., '95,	New London.
Wilson, Frederick Morse, A.B., Colby, '71,	Harvard, '75,	Bridgeport.
Wilson, John Joseph,	P. & S., Balt., '86,	Bristol.
Wilson, Samuel Allen,	Yale. '52,	Windsor.
Wilson, William Patrick,	P. & S., Balt., '90,	Wallingford.
Wilson, William Virgil,	Yale. '67,	West Haven.
Winchell, Alverd Ezra, A.B., Wesleyan, '57,	P. & S., N. Y., '65,	New Haven.
Witter, William,	Yale. '65,	Norwich.
Wolff, Arthur Jacob,	Tex. Med. Col.,'76, Bellevue, '83,	Hartford.
Wood, William Francis,	P. & S., Balt., '93,	Danbury.
Wooster, Charles Morris,	Univ. N. Y., '79,	Tariffville.
Wordin, Nathaniel Eugene, B.A., Yale, '70; Yale, M.A., '72,	Jefferson, '73,	Bridgeport.
Wright, Frank Walden,	Bellevue, '80,	New Haven.
Wright, John Winthrop, A.B., Amherst, '77,	Univ. N. Y., '80,	Bridgeport.
Wright, Theodore Goodelle,	Univ. N. Y., '65,	Plainville.
Wurtemberg, William Charles, Ph.B., Yale, '89,	Yale. '93,	New Haven.
Zink, Walter,	Wurtzburg,	Branford.

Members noticing any errors or omissions in any part of their record will please inform the Secretary for correction in future lists.